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CLINICAL SKETCHES

Medical Illustrations and Diagrams

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CLINICAL SKETCHES

JANUARY 1895

A New Departure

THE PURPOSE of this Journal is to supply an illustrated record of Medicine and Surgery in such a manner that the *practical bearing* of new discoveries and interesting cases may be imparted in as brief and plain a manner as will be consistent with usefulness to the practitioner.

One feature of 'CLINICAL SKETCHES' will be the ILLUSTRATIONS, in the preparation of which every endeavour will be made to represent the subjects plainly and practically.

As regards the letterpress the following objects will be aimed at:—

- (1) The selection of subjects of real practical interest to the General Practitioner and the practising Physician and Surgeon.
- (2) Brevity and simplicity of description.
- (3) Association, as close as possible, of the text with the illustrations.
- (4) Plainness of type, so that the Journal can be read with facility.

It is intended to discuss or record many subjects which, although not usually included in Medical Literature, may be specially interesting to medical men.

The contents will chiefly consist of original Clinical Lectures or Papers, Short Notes of Cases, Abstracts and Résumés of Current Medical Literature, Clinical Notes and Descriptions of New Apparatus.

Reviews of New Books and New Editions will be given, and they will be rather analytical than critical.

There will be a department for the practitioner in the country, dealing with veterinary subjects and other allied matters in which he may be interested.

It is further proposed to give notes and descriptions of health and holiday resorts.

The conduct of the Journal will be entirely in the hands of members of the Medical Profession who have had considerable experience in literary matters as well as in the production of medical illustrations.

It is hoped that the practical character of this publication will ensure its success, and that its pages will be read even by those who have not much time to devote to literary matters.

NOTE BY THE EDITOR

THE publication of 'Clinical Sketches' has been undertaken with the view of supplying what has long seemed to me to be a distinct 'want' among medical men.

That a large majority of the busy members of our profession are too much occupied to read through the mass of medical literature which is put before them every week is very generally recognised as a fact. The consequence is that although medical journals are subscribed to pretty freely throughout the country, yet they are often thrown aside unread, or only casually perused, simply because the reader does not possess the time, nor has he often the inclination, to read through long articles in order to obtain the information which he wants—information which may be described as the *practical outcome of the medical advances of the day*.

Take, for instance, the subject of the Antitoxin treatment of diphtheria. For those who have the leisure it is very interesting to read the full history of the subject, but there are hundreds of us who would rather have this information recorded in the most concentrated form, with a plain description of how the remedy should be used and where the preparation can be obtained.

Then, again, papers are read or written by men of eminent reputation, and published in one or other of the various excellently conducted medical periodicals of the day, which are undeniably good reading, and which teem with valuable information; but how few of us can summon up the effort, after a hard day's work, to wade through such matter! At the same time, we all want to learn the practical points of these writings.

With such ideas in view I shall endeavour to conduct this Journal to the best of my ability and in accordance with the purposes detailed under the preceding heading, A NEW DEPARTURE.

With regard to the Illustrations, these are meant to speak for themselves, but I wish to refer to my intention to introduce a full-sized plate of some medical celebrity, or other subject of interest, in each issue. In this first number I give an engraving of William Harvey, produced in facsimile from a well-known portrait.

My ambition is to attain success by supplying what is interesting without being tedious; by sketching, in a literary as well as in an artistic sense, the

principal points and ideas contained in the work which is constantly emanating from the many laborious toilers of the day in medical science and art.

The original articles will be short, and, as far as possible, illustrated; the abstracts and the *résumés* of papers already published will be prepared with the object of describing the points which may be useful to the working medical man.

Original Papers

AN OVARIAN DERMOID SIMULATING A RENAL TUMOUR

By HENRY MORRIS, F.R.C.S., M.A. LOND.

Surgeon to the Middlesex Hospital.

AN unmarried lady, age 47, had from time to time for a period of six or seven years suffered from attacks of aching pain in the left side of the abdomen. These attacks lasted for several days, and were associated with increased frequency of micturition, the urine containing a large quantity of urates and uric acid.

The attacks had been attributed to gravel or renal calculous formations (gouty?).

She was a fine well-made woman of robust but somewhat flabby appearance.

On the morning of September 29, 1891, having previously been in good health, she was seized suddenly with pain in the left lumbar region and left half of the abdomen. The pain got rapidly worse, and she became so collapsed that for some hours life was almost despaired of. The doctor who was summoned attributed the seizure to renal colic, but on examining the abdomen he discovered a tumour in the hypogastric region.

When the colic had subsided, a rounded elastic tumour in the left loin and iliac region, reaching down to the left iliac fossa, was also detected.

On the second day after the commencement of this attack, the latter tumour was tapped in the iliac region, and many ounces of fluid were withdrawn. This was followed by the disappearance of the swelling in the loin. The fluid was found to contain neutral fats, irregular cholesterin crystals, and epithelial débris.

After the tapping steady improvement followed.

Twelve days later (October 13) the patient was able to travel home to London (140 miles).

On October 14 an examination under an anæsthetic disclosed a firm, hard, and almost fixed tumour in the left lumbar region about the size of a cocoa-nut. It gave rise to a dull note on percussion in the loin, but there was resonance over its front surface.

Below this tumour, but distinct from it, was another tumour, hard, firm, and almost immovable, in the hypogastric region; it seemed about the size of a small melon. By both vaginal and rectal examination this lower tumour could be felt blocking the pelvis; it was very slightly movable bimanually. The os uteri was natural, the cervix shortened, and the body of the uterus was enlarged, and moved only with the tumour.

The urine was very acid, highly charged with urates, but contained neither pus, blood, nor albumen, and was rather under the normal in quantity. There was neither fever, pain, nor marked tenderness, but a sense of weight and dragging when she moved or attempted to stand. The catamenia were, and always had been, regular, though frequently painful during the first forty-eight hours or more.

A week later she was able to take carriage exercise. The urine became quite clear whilst taking Fachingen alkali water, but the abdominal tumours remained unchanged.

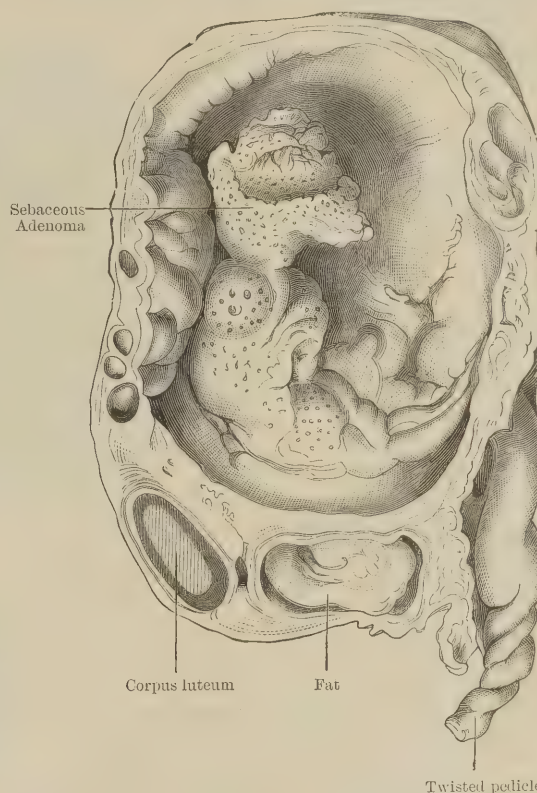
Operation.—On November 16, 1891, laparotomy was performed. The uterus contained in its substance a large myoma, which blocked up the pelvis, and could not be raised far out of it. In the left loin was a cyst of the left ovary with an elongated pedicle tightly twisted upon itself, being two and a half times rotated on its axis. The tumour, engorged with blood, was fixed in the left loin by adhesions to the lumbar parietes; and over the front and inner side of the tumour a coil of small intestines and part of the omentum were adherent by recent adhesions of a vividly crimson colour.

A fringe of the omentum was ligatured by four catgut ligatures and removed, and the tumour was then freed of its parietal and intestinal adhesions, and removed after ligaturing the pedicle near the uterus. The right ovary contained several small cysts, and was, with its Fallopian tube, also ligatured and removed. The uterine myoma was left untouched; and after thoroughly cleansing the peritoneal cavity, the wound was closed.

The dermoid removed had thick walls containing cysts, several of which were occupied by fat of the

consistence of cocoa-butter. There was also a large corpus luteum, indistinguishable from the so-called corpus luteum of pregnancy.

The main cavity contained **sebaceous material** intermixed with a quantity of short hairs, none of which were at the time of examination attached to the cyst wall. Hanging into the cyst cavity, and attached by a thick pedicle, was a soft, skin-covered tumour, which, on section under the microscope, exhibited little else than clusters of very large sebaceous glands.



THE OVARIAN DERMOID WITH A SEBACEOUS ADENOMA. IT CONTAINED HAIR, BUT ITS WALLS WERE BALD.

This figure was used by Mr. Bland Sutton in his work on TUMOURS.

Subsequent progress.—The wound healed, and the temperature was normal for eleven days—namely, until November 27, when it began to fluctuate daily between normal and 100.2° . On December 2 the temperature rose to 100.8° , and on December 3 to 101.2° in the evening.

On December 6 much abdominal pain was complained of, and there were great restlessness, much mental excitement, increasing size in the uterine tumour, tympanites, and irregular action of the bowels, which were on some days constipated and on others relaxed, with tenesmus.

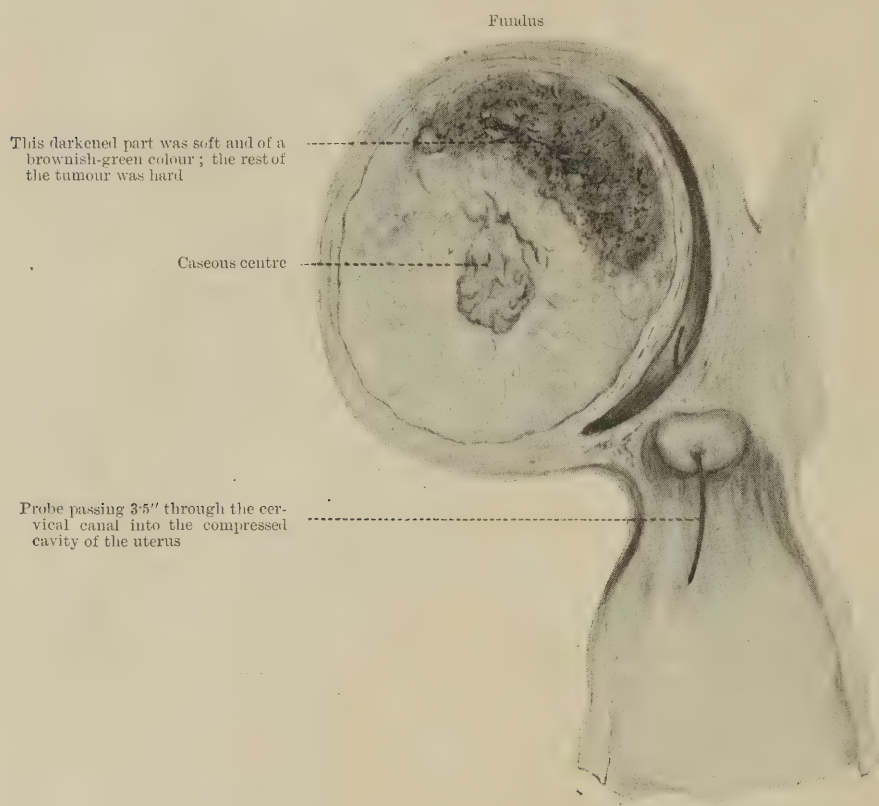
During the night of December 14 there was a free discharge of very offensive pus per rectum. In spite of the discharge there was much œdema and fulness felt per rectum and per vaginam. On December 21 there was increasing size of the uterine tumour, and the upper part of the abdominal scar had become red and œdematous.

On December 24, the abscess in the line of the cicatrix broke, discharging a quantity of very offensive pus, leaving a hole from which a subparietal track took a course downwards towards the symphysis pubis.

line in the upper third is a small patch of iodoform corresponding to the sinus in the abdominal parietes. On the left side of the fundus is a small subperitoneal myoma about the size of a bean. It is in close proximity to the uterine end of the left Fallopian tube.

A probe passes 3·5" into the cervical canal. The enlargement is due to a rounded myoma in the anterior wall of the uterus.

The uterine wall is stretched over the tumour, but there is no sloughing of the wall of the uterus. The myoma is, in the main, firm, but in its posterior



SECTION OF THE MYOMA AND OF THE UTERUS AND VAGINA.

For several days previously the patient had been delirious, pulse 130, respirations 48, irregularity of bowels, and sometimes unconscious micturition.

On December 31, she became semi-comatose, with pulse 130, respirations 48, and temperature 102°. The coma deepened until midnight of January 6, when she died.

For the last two days before death the temperature varied from 101·2° to 105°.

Post-mortem by Dr. Voelcker.—The uterus is enlarged and almost globular in form. It measures 4·75" × 4·0". It feels firm. On the anterior and upper surfaces are numerous adhesions, and in the middle

portion is brownish green in colour, and soft. About its centre is a pale yellow islet the size of a threepenny piece, which is evidently a caseous centre of old date. No earthy material can be felt in this patch.

Tubes.—The left tube is ligatured with silk. The stump seems quite healthy. The intestine is adherent at this spot, but there is no perforation.

Right tube.—No ligature can be made out; but, in a position corresponding to the ligature on the left side (*i.e.* 1·5" from uterus), it is adherent to the sheath of the right psoas muscle, and thus to the abscess in the sheath.

The retro-uterine pouch is an abscess cavity,

ragged and sealed off by adhesions above. There are two perforations into the rectum, each rather over 0·5" long, and situated 0·75" from each other. These perforations lead from the abscess cavity in Douglas's pouch into the cavity of the rectum. There are no signs of laceration of the muscles of the rectum.

Remarks.—This case not only teaches us how an ovarian dermoid may simulate a renal tumour, but is very interesting as showing an occasional complication of a uterine myoma. The great length of the pedicle allowed of the dermoid rising into the ileo-costal region, and the position of the intestine in front of the cyst gave it still further the character of a hydronephrosis, whilst the presence of the second tumour in the hypogastrium afforded a reasonable explanation of renal distension by mechanical pressure on the ureter.

The old caseous patch in the centre of the myoma is evidence of a tendency to undergo degenerative changes—possibly induced by the increasing vascular demands of the growing dermoid and the consequently diminished vascular supply of the myoma. It is open to question whether the sloughing process would have occurred in the tumour had the right ovary not required removal. It would be interesting to know whether, in the practice of others, double oophorectomy for bleeding fibro-myoma has been followed by necrosis of the tumour.

A CASE OF EXTRA-UTERINE GESTATION, WITH THE HISTORY OF TWO SUBSEQUENT INTRA-UTERINE PREGNANCIES

By JOHN PHILLIPS, M.A., M.D., F.R.C.P.

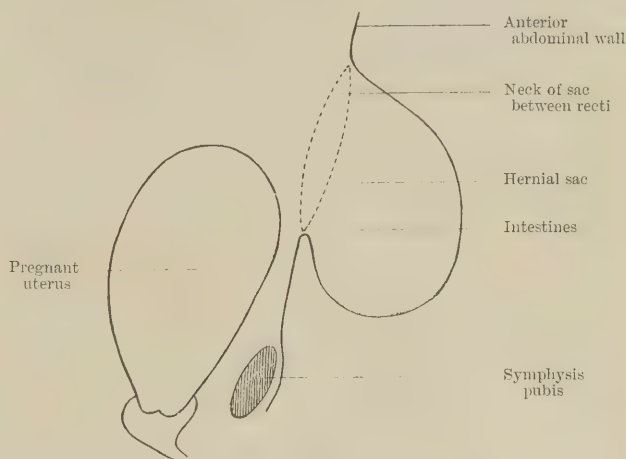
Assistant Obstetric Physician, King's Coll. Hospital, Physician British Lying-in Hospital, Examiner in Midwifery, Univ. of Cam.

Mrs. S. M., aged 26, a secundipara, was first seen in 1891 in consequence of menorrhagia. She had missed a period, and considered herself pregnant. Hæmorrhage began seven weeks after her last menstruation, and was copious. On examination the uterus was enlarged, and there was a mobile, tender swelling, the size of an unshelled walnut, in the left and posterior half of the pelvis. The hæmorrhage continued in spite of all treatment, and the extra-uterine swelling appeared to be increasing.

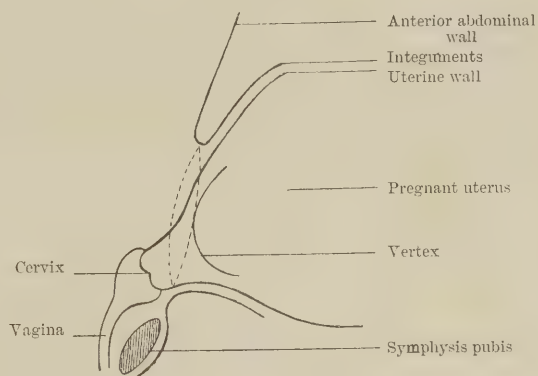
The abdomen was opened January 2, 1892. Four large clots and nearly a pint of fluid blood were found in the lower portion of the peritoneal cavity, and the left Fallopian tube was considerably distended. The ovary and tube were removed and the abdomen closed.

On opening the tube a hardish blood clot was found, which, on examination microscopically, showed undoubted signs of a tubal gestation. The patient made a good recovery.

September 13, 1892. She has reported herself regularly, and to-day says that she is pregnant about six months. This was found on examination to be



SAGITTAL SECTION OF PARTS AT 5 TO 6 MONTHS PREGNANCY
(Semi-diagrammatic)



SAGITTAL SECTION OF PARTS AT TERM
(Semi-diagrammatic)

From sketches made at time by author

the case, and there was a hernia at the cicatrix, which, on straining, attained the size of a cocoa-nut. She was ordered a belt, and told to attend regularly for observation. This she failed to do, and I did not see her again until she was admitted into the British Lying-in Hospital on January 6, 1893—apparently in labour. She appeared very ill; her temperature being 104° F. and pulse 120. Pain in lower abdomen constant.

On examination the uterine fundus was found

protruding from between the recti muscles, and lying halfway to her knees. The os uteri was slightly dilated and felt, with difficulty, high up and presenting directly backwards. The uterus could not be replaced, although a prolonged attempt was made with that object. It was therefore supported by an abdominal band. The pains continued up to January 11. The os uteri gradually dilated. The forceps was applied, and a living female child delivered.

Reduction of the uterus through the recti was now fairly easy. The patient made a good recovery.

	Temp.	Pulse
January 6, Morning	104 $\frac{1}{2}$ °	120
Evening	104 $\frac{3}{8}$ °	120
.. 7, Morning	99 $\frac{3}{8}$ °	96
Evening	99 $\frac{3}{8}$ °	100
.. 8, Morning	99 $\frac{3}{8}$ °	99
Evening	102°	106
.. 9, Morning	99 $\frac{1}{2}$ °	90
Evening	99 $\frac{1}{2}$ °	104
.. 10, Morning	97 $\frac{3}{8}$ °	86
Evening	102 $\frac{3}{8}$ °	104
Cervix size of a half-crown		
.. 11, Morning	102°	98
Labour. Forceps		
Evening	102°	93

On September 23, 1894, she was confined again at full term. No complication arose at this labour. During the whole of her pregnancy she was carefully watched, and wore an abdominal belt throughout. She is now well, with the exception of the hernia at the site of the abdominal cicatrix, which she declines to have treated by any plastic measures.

A DIAGNOSTIC PROBLEM

By ANDERSON CRITCHETT, M.A. CANTAB.
Senior Ophthalmic Surgeon to St. Mary's Hospital.

Amongst the many anxious moments in the life of an ophthalmic surgeon there are none that bring a greater weight of responsibility than when the destruction or possible salvation of a seeing organ rests on his decision, and the evidence is of a conflicting character. An instance in point has recently occurred in my practice, and I think it is of sufficient interest to be placed on record.

H. H., aged 15, was sent to me in November 1894 by Dr. Digby, of Ticehurst, and I obtained the following history.

About a week before I saw him, the boy had found a heap of stones and a hammer, on a road adjacent to his home, and the temptation to try his hand at an

occupation which offers special attractions to youth, but is the bane of old age, proved too strong to be resisted. Before many blows had been struck he received a wound in his right eye from a fragment of flint, and when I saw the injured organ I noted the following conditions. There was a small incised wound of the cornea slightly to the inner side, the anterior capsule had been ruptured, some of the soft opaque lens substance had escaped into the anterior chamber, and there was a lozenge-shaped gap in the iris up to the pupillary margin involving the whole of the circular and a few of the longitudinal fibres. I noticed one anterior synechia and two posterior synechiæ, slight iritis, and marked ciliary injection.

The foregoing facts were sufficient to show that the eye had undergone very serious and extensive injury, but the following points of evidence pleaded strongly in a hopeful direction.

The tension of the globe remained normal, there was an entire absence of pain, and the projection



over the whole field of vision seemed perfect. The crucial question therefore arose whether I should endeavour to remove the lens in the hope that useful sight might result from my operation, or whether a foreign body had penetrated the globe, in which case the retention of the latter would in all probability involve the destruction of the sound eye from sympathetic ophthalmitis.

I decided on the major operation for these reasons. If the eye had been struck by a large and heavy piece of flint, the corneal wound would have been less cleanly cut, and the weight of the mass, even if it had penetrated the iris, would probably have driven the latter delicate structure before it instead of incising it.

I also noticed that the wound in the iris almost exactly corresponded in size and direction with that in the cornea. I therefore came to the conclusion that a small sharp fragment of flint had been driven into the eye with considerable force and velocity, and that I should best consult the welfare of my patient by enucleating the globe.

The operation was performed at St. Mary's

Hospital, under an anæsthetic, on November 23, and on opening the excised eyeball by an equatorial incision in the anterior half, an irregular splinter of flint was visible, about 2 mm. in its widest diameter, embedded in the pars non-plicata of the ciliary body just anterior to the ora serrata, situated 45° down and out, and forming with the corneal wound an angle of 120°. Its posterior margin was free in a clear vitreous, and there were no signs of turbidity from inflammation.

I confess that I felt relieved when I saw the offending silicious fragment *in situ*, for the case had involved a very responsible decision, and had I not been fortified by the diagnostic data I have already mentioned I should have hesitated to remove the eye.

The doubts which this case engendered lead me to suggest that it is a matter for some regret that the talented author of 'Sherlock Holmes' should have abandoned ophthalmology for literature, since, in cases such as the foregoing, his power of weighing probabilities and analysing evidence might have proved of inestimable value.

DIPHTHERIA AND ITS BACTERIOLOGICAL DIAGNOSIS

By R. T. HEWLETT, M.D., M.R.C.P.

Assistant Bacteriologist, British Institute of Preventive Medicine, London.

The importance of a correct and early diagnosis of diphtheria cannot be over-estimated, both for the adoption of measures to prevent spread of the disease, and with a view to the early use of antitoxin and the estimation of the value of this remedy. As to the naked-eye appearances of the membrane in diphtheria, it is now admitted that non-diphtheritic membranous affections of the fauces and air-passages sometimes occur, the clinical appearances of which are indistinguishable from diphtheria, though they usually run a much milder course. The differentiation of true from pseudo-diphtheria is therefore of the greatest importance.

Recent observations, especially in America, have shown that diphtheria can be diagnosed most certainly by the discovery of the Klebs-Löffler bacillus by means of bacteriological methods. In 1883 and 1884 Klebs and Löffler isolated and described a particular rod-shaped organism in cases of diphtheria. Subsequent experiment has confirmed the correctness of their observations, and it is now recognised that diphtheria

is a specific disease dependent upon infection with the Klebs-Löffler bacillus. This organism is slightly larger than the tubercle bacillus; it occurs in large numbers in the membrane, either alone or associated with other organisms, micrococci (spherical forms) and streptococci (chain-forming micrococci). It can be readily cultivated and grows freely on blood-serum, agar-agar, and gelatine, and in broth. The form of the Klebs-Löffler bacillus is that of a slender rod with



THE KLEBS-LÖFFLER BACILLUS. COVER-GLASS PREPARATION FROM A CULTIVATION, STAINED WITH LÖFFLER'S METHYLENE BLUE. $\times 1,500$ (SWIFT'S $\frac{1}{12}$ " O.I.).

rounded ends usually somewhat curved, a little longer than the tubercle bacillus, and about twice as thick. In stained preparations some are coloured uniformly, while in others the protoplasm breaks up and stains irregularly, giving rise to a beaded appearance. The rods frequently show irregularities in form; one end may become swollen or club-shaped, like a lemonade bottle, or the centre of the rod may be enlarged so that it becomes spindle-shaped.

Preliminary method of examination of the membrane.—In a small proportion of cases the diagnosis of diphtheria can be confirmed by the discovery of this organism in the membrane by the following method:—

A particle of the membrane is detached from the throat, teased up in a droplet of water on a cover-glass, and the 'teasings' spread over the cover-glass and allowed to dry. The cover-glass is then passed pretty rapidly three times through the flame of a spirit-lamp or Bunsen burner, in order to 'fix' it. The film is stained for ten minutes with a drop or two of Löffler's solution of methylene blue,¹ then washed in water, dried and mounted on a slide, film side downwards, in a drop of Canada balsam. On examining the preparation under the microscope with a one-twelfth-inch oil immersion objective, the characteristic Klebs-Löffler bacillus may be met with. It is only in a small proportion of cases that this method is applicable, for failure to find the bacilli is of little or

¹ Löffler's Methylene Blue Solution:—Aqueous solution of caustic potash (1 in 10,000), 100 parts; concentrated alcoholic solution of methylene blue, 30 parts. Mix.

no value, and usually the more elaborate method of *cultivation* has to be adopted.

Cultivations.—In order to make cultivations, tubes of sterilised blood-serum have to be employed; agar and gelatine are unsuitable. The preparation of the tubes of sterilised blood-serum is probably too complicated for the busy practitioner to undertake, and fortunately these tubes can now be obtained ready for use from several firms. A wool swab is prepared by twisting a little wool round the end of a piece of stiff wire (a straightened hairpin will do very well), and is sterilised by passing it several times rapidly through a flame, so as to singe but not to char it. This swab is rubbed gently over the patch of membrane in the throat or fauces &c. The inoculated swab is rubbed two or three times over the coagulated serum of a blood-serum tube, care being taken not to break up the surface of the serum. This operation should be done expeditiously, the wool plug with which the tube is stoppered being meanwhile held in the fingers (and not laid on the table), and replaced in the tube as soon as the swab has been withdrawn. The latter should be destroyed by burning.

The inoculated tube must be kept in a warm place or chamber (incubator) at a temperature of 90–98° F. for not less than twelve hours.

If the surface of the blood-serum be then carefully scrutinised, numerous whitish or cream-coloured raised spots will be observed. These are growths or ‘colonies,’ and vary in size from mere points to a large pin’s head. A microscopical examination of these growths is necessary to establish the diagnosis. A long needle mounted in a slender wooden handle, or, better still, a platinum needle—two inches of platinum wire sealed into a glass rod—is sterilised in the spirit lamp or Bunsen flame, and two or three of the colonies on the surface of the blood-serum are picked up on the end of the needle, rubbed up with a droplet of water on a cover-glass, the emulsion spread over the cover-glass, dried, fixed, stained, mounted, and examined, as in the case of the membrane. It is necessary for the microscopical examinations to employ a one-twelfth oil immersion objective. The Klebs-Löffler bacillus will be readily recognised if present. If none be found, other preparations from different portions of the growth on the serum must be made. Provided certain conditions have been complied with, the diagnosis of diphtheria is confirmed or not by the presence or absence of the Klebs-Löffler bacillus in the preparations.

These conditions are that the cultivations should

have been made early in the case while the membrane is forming; that no antiseptic should have been applied; and that sufficient skill should have been attained to make a satisfactory cultivation. In some cases the Klebs-Löffler bacillus is present in pure culture, at other times mixed with other micro-organisms. When the medical man has no ‘culture outfit’ with him and cannot procure it at short notice, the following simple method has been suggested. An egg, which is generally procurable, is boiled hard for eight to ten minutes; the shell is then chipped away from one end with a knitting-needle or penknife, the point of which has been sterilised in a gas or candle flame. The exposed white is then inoculated with a swab (prepared as previously described, or even with a knitting-needle or straightened hairpin sterilised in a flame) which has been rubbed over the patch of membrane. The egg is then placed, inoculated end down, in a wineglass or egg-cup (sterilised in the flame), care being taken that the exposed white does not come in contact with the glass or egg-cup. The preparation must be kept in a warm place, colonies develop, and the further investigation is carried on exactly as with a serum tube. This method sounds feasible, but I have not yet had an opportunity of trying it, though I have found by experiment that the Klebs-Löffler bacillus grows well on the egg prepared in this manner. Other information may also be gleaned from cultivations. True diphtheria where the Klebs-Löffler bacillus is present has a mortality of from 25 per cent. to 70 per cent., and when streptococci are present in addition, the disease is generally more severe and fatal. In pseudo-diphtheria, membranous affections in which the Klebs-Löffler bacillus is absent, and caused by micrococci and streptococci, the mortality ranges from 0 per cent. to 20 per cent., so that it is a much less fatal affection than true diphtheria.

The bacteriological investigation of diphtheria has shown that the Klebs-Löffler bacillus may sometimes be present in the throat long after all local manifestations have disappeared. In half the number of cases it lingers for at least a week, and it has been met with as long as nine weeks. Presumably, while the bacilli remain, the case is a possible source of infection, and in New York isolation is insisted upon until cultivation shows their absence.

Provided that the cultivations are satisfactory and have been made with due care, the only fallacy in the bacteriological diagnosis is the occasional presence of what are termed ‘pseudo-diphtheria bacilli.’ These are bacilli which morphologically resemble the Klebs-

Löffler bacillus, but which are found to be non-virulent when tested on animals. These pseudo-bacilli are only rarely met with, their exact nature is doubtful, and their occurrence does not constitute a practical objection to the bacteriological method of diagnosis. The occasional error which they may possibly introduce is one on the safe side.

The Public Health Service of New York now gives the greatest facilities for the bacteriological diagnosis of diphtheria. At a number of stations a 'culture outfit' can be obtained. This is a small box in which are two test tubes, the one a tube of sterilised blood-serum, the other containing a sterilised swab. The physician, having made the inoculation in the manner described above, returns the tube to the station, where it is incubated and examined, and the next morning a report is forwarded to him.

When shall we have a like condition of things in this country?

[Many laboratories &c. now provide the necessary 'culture-outfits,' and undertake the examination of the inoculated tubes and furnish reports thereon for a small fee. For further information on the method of diagnosis described the reader is referred to two papers in the *Medical Record* (New York): (1) September 15, 1894, p. 321, Biggs; (2) September 29, 1894, p. 385, Park and Beebe.]

ANTITOXIN TREATMENT OF DIPHTHERIA

By the time this article appears in print it is probable that every practitioner throughout the country will be well informed of the progress of this new method of treatment; antitoxin being now recognised not only as a legitimate remedy, but as one which no medical man is justified in neglecting to make use of.

We propose now to sketch, as far as may be useful, the present aspect of the matter, and describe the points which may be helpful in the application of the treatment.

Preparation of antitoxin.—It is doubtless well known to our readers that the horse is the animal which is most suitable for the purpose of the preparation of antitoxin.

How the preparation is made.—Horses are inoculated with the toxin, and gradually made to stand stronger doses. When the animals can bear considerable doses of the toxin without showing signs of ill health, the serum of the blood becomes the antidote or cure or remedy for diphtheria.

Dr. Sims Woodhead gave a lecture upon the diagnosis and antitoxin treatment of diphtheria at the Examination Hall of the Royal College of Physicians and Surgeons on Friday, December 7, 1894. He urged the importance of an early diagnosis of diphtheria. The bacilli are almost invariably found on the surface of the false membrane, although sometimes more deeply; but seldom, if ever, in the mucosa.

The Metropolitan Asylums Board have taken this matter up very enthusiastically, and Dr. Sims Woodhead, as director of the Research Laboratories, is sending out to the hospitals under the management of that Board small cases containing apparatus for collecting specimens for examination. The contents of these cases are as follows: (a) a test tube (plugged with sterilised cotton wadding) in which is a quantity of suitable solidified nutrient medium carefully sterilised; (b) a second tube also plugged with cotton wadding, in which is held a small soft steel rod, roughened at the end, around which is fastened a pledget of cotton wadding, the whole being carefully sterilised by dry heat. When a case of diphtheria is to be examined, all that is necessary to be done is to take these tubes from the box, take out the wire with the pledget of cotton wool, and press it gently but firmly against the membrane in the throat, or at the place from which the membrane has disappeared. The serum tube is then opened, and the pledget is drawn carefully once or twice from bottom to top of the inclined serum surface. The cotton wadding plug is returned, the wire with the pledget is replaced in the empty tube, and the box is packed up and sent at once for investigation at the Laboratories. In those cases in which fragments of the membrane can be easily detached, it is advisable with a platinum spatula, previously heated and allowed to cool, to remove a fragment and to place this in the tube along with the iron wire and its pledget. Such a fragment may be used in case the first inoculation fails to give the necessary results. The serum tube is placed in the incubator, and is examined at intervals until growths make their appearance, eight to twenty hours at the latest, so that the case, even when inoculations are to be made, can be reported upon within twenty-four hours of the receipt of the material.¹

The lecturer further described the success which has already attended this treatment, especially in Paris, where the deaths have been reduced to the extent of 30, and in some cases to 50, per cent.

¹ In the foregoing paper by Dr. Hewlett a somewhat similar method is described.—ED.

When the disease is once got under, we have little or no fear of any return. It is not a process of vaccination, though it is quite possible, from what has been seen in experiments on animals, that a temporary protection may be obtained which will carry the child over the period of danger in an infected house or district. The antitoxic serum is a direct therapeutic agent, and is only of service in patients actually suffering from the disease. Cautious observers, both among pathologists and physicians who have had an opportunity of observing a number of cases treated, have acknowledged that they have been surprised at the results obtained, and Virchow, who almost from the first deprecated the extravagant claims that were put forward for Koch's tuberculin, has stated that, in view of the remarkable results obtained in carefully observed cases of diphtheria, it is the duty of every physician to employ the antitoxic serum remedy, in spite of the fact that a certain number of attendant drawbacks have been described. A good deal of nonsense has been written, says Dr. Woodhead, about the danger of injecting organic fluids into the body, especially organic fluids taken from animals suffering from disease—such as glanders and tuberculosis. The obvious answer to such objections is that serum is never taken from an animal so diseased.

It has also been asserted that the inoculated horse is suffering from diphtheria, and that only the poison which has accumulated in the blood is injected into the human patient. Against this may be placed the fact that the toxin will certainly not neutralise its own action, and if we are dealing simply with toxin we should have a summative and not an antidotal effect¹

We will now append the summary of a case recorded by Dr. John T. Malcolm.

Case.—Dr. John T. Malcolm (Dornoch, Sutherland) contributed a case ('British Medical Journal') of which the following is a summary:—

A boy, aged 13, confined to bed September 17, 1894. On September 19, the throat was covered with diphtheritic membrane, tonsils greatly inflamed, pulse 80, temperature 100°F.; tongue greatly swollen. On September 21, at 8 P.M., temperature 100°, pulse 84, jerky, high tension. 9 P.M. injected 40 minims of Dr. Aronson's antitoxin (a concentrated solution). At 10 P.M. temperature 101°, pulse 80, soft, low tension.

September 22, at 10.30 A.M., temperature 99·6°, pulse 76. Expecterated large masses of membranes

like small bits of tripe. After injection gentle slumber for five hours. 9.30 P.M., temperature 99°F., pulse 76. Glands at the angle of jaw greatly swollen.

September 23, 11.30 A.M., pulse 68, temperature 99·2°F. Had passed a quiet night. Swallowed better, throat greatly cleared, only two small patches remaining on the uvula. 9 P.M. temperature 99·2°F., pulse 72, very low tension. Peculiar rhythm; alternating rise and fall of beat for a few days which appeared to be result of injection of antitoxin.

September 25. Temperature 100°, pulse 80. Patient now swallowing well and sleeping well.

October 18. Patient going about the house, regaining health and strength.

Remarks.—This was a severe case of diphtheria. The boy could neither swallow food or medicine, nor open his mouth sufficiently to allow painting or spraying of the throat. Fatal termination was apprehended. The good effects of the antitoxin were:—

(1) The profuse expectoration of membranes: (2) the quiet and ease the patient enjoyed after the injection, he being apparently free from all suffering.—

The antitoxin was obtained from Messrs. Zimmerman, of London. A great many cases have been reported in the 'British Medical Journal' more or less favourable to the treatment.

DIRECTIONS FOR THE USE OF ANTITOXIN SERUM

It may be laid down as a fact that the best chance of success is secured by injecting the serum as soon as possible after the diagnosis is confirmed. Even should the case turn out not to be an instance of true diphtheria, it seems that no harm will be done. In order to come to a definite conclusion as to the real efficacy of the serum, a bacteriological examination of the throat exudations or membranes, if present, should always be made, as it is only by carefully excluding all cases but those of true diphtheria from our statistics that we shall arrive at a correct idea of the effect of treatment. Those who have not the technical skill, appliances, or time for such an examination can now have it done for them by some such arrangement as that carried out by the Clinical Research Association, the fees being sufficiently reasonable to almost do away with the deterrent effect of cost.

¹ We were indebted for the first report of Dr. Woodhead's lecture to the *Medical Press and Circular*.

As to the precautions to be observed in using the serum. It must be borne in mind that the dose is a large one, and in injecting an amount of 20 cubic centimetres (over 5 drachms) of an organic substance into the tissues there is great need for very careful asepticity of the serum, skin, and instruments employed. Failure in any of these directions is liable to induce septicæmia, which cleanliness would have avoided. The serum itself is sent out in an aseptic condition in stoppered bottles. The preservative generally employed is camphor, but if not required for immediate use it is well to keep the bottle in a cool place and screened from the light, so as to avoid all chance of decomposition. The best form of syringe is one after the pattern of Roux, and capable of holding the full 20 cubic centimetres required. It should be sterilised before use by boiling for about ten minutes in water. Some of the syringes are conveniently made so that their cases serve as miniature saucepans in which to carry out this operation.

Lastly, the seat of selection for the injections is the loose tissue between the scapulæ. The part should be first carefully washed with soap and water, then dried, and the injection made into the loose subcutaneous tissue. The serum is generally absorbed within a few minutes, and gives rise to no unpleasant local effects. The syringe should be again sterilised before being put away, the needle being carefully cleared of the drop of serum which it contains.

Among the various letters to the journals describing personal experiences of this treatment, some have stated that the result has not been satisfactory; but we find that in some of these reports the dose is considerably smaller than that recommended, such as 15 mm., and six hours later another 5 mm., in a severe case of diphtheria. Then, again, it is impossible for us to estimate the value of the foreign preparations of antitoxin serum, some of those of the manufacturing chemists in Germany being concentrated, and therefore far more likely to be wanting in uniformity in strength, and possibly inefficient, than those prepared as they are in this country.

Twenty cubic centimetres (over 5 drachms) may be injected upon the first occasion, and twenty-four hours later either the same dose, or half that amount, may be administered; and should the symptoms, and especially the temperature, remain serious, another dose may be given later on. This is the plan adopted by Roux, and he has never used less than a dose of 5 drachms, and has even administered as much as 4 ounces, and in one case between 6 and 7 ounces.

Dr. Klein's serum.—The serum sent out by Dr. Klein for the use of hospitals is accompanied by a memorandum of instructions in which it is stated that the ordinary therapeutic dose is $1\frac{1}{2}$ to $2\frac{1}{2}$ fluid drachms.

It is further advised in this memorandum that 'an accurately graduated glass measure, previously sterilised by boiling, should be taken, and the quantity of the serum required for one injection (namely, $1\frac{1}{2}$ to $2\frac{1}{2}$ fluid drachms) should be poured into the measure, the bottle re-stoppered, and kept in a cool, dark place under a glass bell-jar.' Any surplus is not to be poured back into the bottle.

The smaller dose here advised is considered sufficient, as Dr. Klein's preparation is more powerful than that above referred to.

Supply of antitoxin.—We have made inquiries as to obtaining the antitoxin serum, but probably by the time this Journal is published the facilities will be very largely increased, and the supply of antitoxin sufficient to meet the demands.

The British Institute of Preventive Medicine has for some time been issuing to certain public institutions a supply of antitoxin through the instrumentality of Dr. Klein, who has instituted a plan of producing the antitoxin much more quickly, and apparently more satisfactorily, than hitherto carried out.

We have written to the principal firms of chemists in London, to inquire whether they are able to supply this remedy. Several of them write to say that at present they are not in a position to do so. Messrs. Arthur & Co., of Berners Street, state that they have tried to obtain antitoxin from the British Institute of Preventive Medicine; but they are told that it is not yet decided whether the remedy will be supplied to chemists, and that probably it will not, because they do not care to run the risk of its decomposing by careless treatment. The Institute expects to have enough serum by the middle of January to supply all England. Messrs. Zimmerman are the agents for Aronson, but are unable to supply now because the demand abroad is in excess of the supply there.

The only firm which seems to be prepared to supply antitoxin is Messrs. Burroughs, Wellcome, & Co., who have twelve horses in their own hands under skilful scientific treatment; all the work being under the superintendence of a research scholar of the British Medical Association, who has studied the subject under Roux in Paris.

DISCUSSION ON THE ANTITOXIN TREATMENT OF DIPHTHERIA AT THE CLINICAL SOCIETY, DECEMBER 21, 1894.

In this discussion the following remarks seem to us to be well worth repetition.

Dr. Sims Woodhead said the paper contained many points besides those of clinical interest. The cases in which the diphtheria bacillus preponderated were apt to end fatally and early. Those in which with the diphtheria bacillus there were streptococci lasted longer, and fewer of them died. As to the antitoxin, he thought one must attempt to increase the strength of the serum rather than to isolate the antitoxin, which was of very unstable composition. It was in solution in the serum, and its separation must be difficult. In solution it remained in a stable condition. In Klein's and Roux's serum one dealt with two different substances. Antimycetin, as Klein's serum might be called, had greater effects on the bacilli than on the poison produced by the bacilli. In diphtheria a series of poisons, probably, were produced which subsequently acted on the other tissues of the body; as in tetanus, they affected the nerves and muscles. In this, perhaps, lay the key to the greater success of antitoxin when used in the earlier stages of diphtheria, as compared with the comparative failure in the treatment of tetanus by the antitoxic method. Tetanus was only recognised when the local symptoms were over, and the poisons formed later on had already produced their effect.

Dr. Goodall said that, as to the day of the disease on which antitoxin was used, it was omitted from the paper because it usually depended on the unreliable statements of third parties. He had a table, however, which showed that of thirty-two cases injected within the first three days only two died, whereas of twenty-nine injected from the fourth to the fourteenth day as many as eleven died. He did not despair, however, of success, even if the case was beyond the fourth day at the time of the injection. One observer had mentioned that two out of his five cases had died of suppression of urine, and attributed this result to the antitoxin treatment. But, if the serum determined nephritis, how was it that in none of the non-diphtherial cases treated by serum was there albuminuria? A tendency to anuria was amongst the commonest symptoms of diphtheria, and Dr. Goodall considered that local treatment of the throat trouble should be persevered with even after the antitoxin had

been used. In his series of seventy-two cases warm water alone had been employed locally. The use of antitoxin usually brought the temperature down if it was raised beforehand. It might at first rise a little, but he did not lay much stress on the temperature at all. As to his several previous series of seventy-two cases each, the lowest mortality had been 25 per cent, and highest 47 per cent. Only twice had he seen a mortality under 30 per cent. within the same year. It was very striking, therefore, to obtain at once a mortality under 20 per cent.

Brit. Med. Jour. Dec. 29, 1894.

CLINICAL RESEARCH

Under the patronage of Dr. Clifford Allbutt, Sir William Broadbent, Dr. Goodhart, Sir G. M. Humphry, and others, a **Clinical Research Association** has been formed 'with the object of assisting medical practitioners in the investigation and treatment of disease by providing them with trustworthy reports upon excretions and morbid products, for the due examination of which neither time nor opportunity can be readily found in the hurry and stress of private practice.'

Subscribers to the amount of five shillings receive from this Association a box containing bottles with printed labels attached, ready to receive any morbid product which it may be desired to send. Each bottle is enclosed in a case ready to go by post.

One great point in favour of the success of this undertaking is the very moderate scale of charges which has been arranged. For instance, the examination of sputum for tubercle bacilli, with a prepared slide, 2s. 6d.; or a report upon the case, 2s. 6d.; the prepared slide and report together, 3s. 6d. The highest charge for any one undertaking is for that of bacteriological examination of supposed diphtheritic membrane with a report by telegram, 7s. 6d.

We wish this undertaking every success, and think that there can be no doubt of its immense value and convenience if the work is thoroughly carried out; and judging from the careful and systematic way in which the plan has been prepared, we cannot but think that it will be continued equally well.

The Secretary is Mr. C. H. Wells, Clinical Research Laboratory, 1 Southwark Street, London Bridge, S.E.

Tubercle bacilli in the nostrils of healthy persons.—Straus (*Archives de méd. expér. et d'anat. pathol.* July 1894) tested the dust,

solid particles, and mucus of the outer nasal cavities of twenty-nine patients and ward tenders in two hospitals of Paris. The subjects of the test had all been in the hospitals for at least several months, but were not in any way tuberculous. The dust and other nasal contents were removed by the aid of sterile cotton plugs and caught in sterilised water or bouillon, which was injected into the peritoneums of guinea-pigs. Out of all the experiments (twenty-nine), seven trials caused death of the animals by septicæmia or purulent peritonitis. In nine other experiments tuberculosis became unquestionably manifest in from three to five weeks from the time of inoculation. The lesions were very distinct, and the bacilli were demonstrated in every one of these cases. Therefore nearly one-third of the people tested had virulent tubercle bacilli present within their nostrils.—*New York Medical Journal*, December 1, 1894.

Epitomised Lectures and Papers

MUCH valuable information is lost to the more busy practitioner because he has not the time to read the mass of material which is weekly published. We shall therefore, under this heading, epitomise some of the more important and interesting lectures, papers, and reports which are published in various medical journals, endeavouring to describe the more practical outcome of the material at our disposal.

MODERN VIEWS UPON GOUT

In an address delivered before the Willesden District Medical Society on October 4, 1894, Dr. Goodhart, physician to Guy's Hospital, made some very interesting remarks regarding his experience and views upon gout or uric acid diathesis.¹

Gout as a poison.—He referred to the very general idea that gout depends upon the circulation of uric acid in the blood and tissues, and 'that it acts as a poison, producing in one, gout in the big toe; in another, say, lumbago; in another sciatica; in another migraine; in another indigestion; in another insomnia and the black bile, or the blues; in another palpitation, angina, asthma; and so on through a large part of the nomenclature of disease, for there are few things that have escaped the grip of the uric acid diathesis at one time or another in the imagination of this individual or that.'

¹ *Lancet*, October 13, 1894.

In reference to this view he states that, 'after some years' attention to the subject, I am sorry to have to say that I cannot anyhow make my present-day experience fit in with this notion of uric acid. . . . I will begin by making this admission, that many of the ailments I have mentioned as the indices of lithæmia are preceded or followed by a rise in the uric acid tide, as it is called, and that admits of the explanation that the excess of the excretion is an indication of the cause of the disturbance. But does it admit of no other alternative? Obviously it does. The supposed cause may be only a result.'

Uric acid deposit.—Dr. Goodhart thought that there was a very general view taken, both by the public and the profession, that a brick-red sediment in the cold urine is an indication of a gouty tendency. 'But is it of any value at all? Certainly not in the form of propositions so naked and unadorned as this. A sediment of this kind will certainly often indicate that a man has eaten too much, and so far is perhaps a pointer in the direction of gout, but its only true meaning is that there is a disproportion between the solids and fluids of the body. If a man has heart disease and his fluid output is always scanty, his solids will be in excess in the urine, and he will by that criterion be lithæmic; but the same thing will happen if a healthy man has a hard day's exercise and sweats freely and does not replace his loss in this respect by an equivalent amount of water.'

'People who find their urine thick on standing are apt to rush off to their medical adviser for a pill for their livers, or take a pill without consulting him at all. But the deposits of urates have very little indeed to do with gout. A gouty man may have an attack of podagra, or of one of its several substitutes, his urine remaining free from sediment of any kind, and of low specific gravity.'

Nitrogenous diet probably not a cause.—'The orthodox treatment is to cut off all meat and sugar, possibly butter and bread, and wines, and the patient sufferer lives upon fish, a little pigeon or game for a treat, green vegetables, and dry toast. Instead of wines that hypothetically turn acid he has to drink whisky, which perhaps does not; but this may be, I know not, jumping out of the frying-pan into the fire, in some other direction. . . . As a matter of observation I cannot bring myself to see that dieting

of this rigid kind makes any difference in the great majority of people that I see, and in the absence of any decisive proof from this direction there is considerable difficulty in others also, for the total quantity of free uric acid in the blood seems so small a thing to produce such multitudinous effects; it always seems to me to play somewhat the part of a chemical spinster that has failed to find its mate in some eligible base. And one would think, moreover, from this point of view, that it would be difficult so to regulate the intake of food as to supply "bachelors" and "spinsters" in exactly equal proportions.'

'I see that gravel is quite a common thing in even young infants, and that it occurs in childhood—not in the large meat-eaters as one would suppose, but in those largely fed on farinaceous foods; and curiously enough, I have strong suspicions that an everyday meal of porridge is a sinner in this respect, although I believe it is one of the permissible articles. I have over and over again put such children on more meat—certainly with no disadvantage—quite the opposite, I think. And as one passes to adult age the people who form the majority of the uric-acid-passers that come before me are not the high-living and obese, but, on the contrary, the deep thinker, the moderate liver, the man who has divested himself of every rag of diet that can possibly be dispensed with, so well has he learned his lesson that diet does all the mischief; the man of spare frame and anxious disposition; and the man who has a struggle to make both ends meet, or whose affairs, after being affluent, are becoming embarrassed. Then the history of stone in the bladder creates a difficulty in accepting the meat origin of uric acid. It is exceedingly common amongst the native population of India, where the people can hardly be accused of eating much meat. It is said to be extremely uncommon amongst the children of the upper classes in England, where meat, as a rule, is eaten in fair quantity. And as regards morbid conditions that come more particularly under the ken of the physician, I see it sometimes in the hypochondriac and melancholic, and in the dyspeptic; I see it in association with glycosuria, or interchanging with it; I see it again in storms in the course of chronic Bright's disease; and when one comes to think about it the condition is so common that it is impossible to enumerate all, or nearly all, the conditions under which it makes its appearance.'

The uric acid bugbear.—'Now, notwithstanding all this diversity in the manner of its appearance, if the

patient seeks advice everyone is put through the same mill. Uric acid is the devil, and attempts are made to drive it out. The uric-acid-er is deprived of red meat and sugar, and so on through a long list of the "may not eats" and "may not drinks" until at last the patient is reduced to this: that on asking him what he has been allowed he savagely replies, "Nothing, sir, nothing! everything that I liked or cared to eat, he cut me off." And as for drugs, again everyone goes through the same round—hot water, cold water, alkalis, iodides, salicylates, and so on through piperazine up to the latest new uric acid solvent.'

The speaker went on to describe 'headache, high tension, epilepsy, convulsions of another sort, hysteria, mental depression, fatigue, asthma, bronchitis, dyspepsia, gout in the stomach, Raynaud's disease, paroxysmal hæmoglobinuria, anæmia, Bright's disease, glycosuria, gout, rheumatism, morbus cordis, and so on;' and he asked, 'Are all produced by this, as I say, excess of a body that we have all more or less to become acquainted with?'

'Does it not seem much more rational to look at it as a product that is formed in various ways; that in each it is formed in individual fashion; that it is with these *chemical* products as it is with *structural change*; that there are limits to these, and that, as there are many diseases represented by one anatomical deviation, so it is with uric acid and many other animal outputs—an ash of some burnt-out fire, an expression on the part of function, as I have elsewhere put it, equivalent to the anatomical one of organic change? I am sure of this, if I am sure of anything, that I have seen many a patient made more and more ill by persistence in a rigid form of dieting to get the uric acid out of the system.'

'It is all very well for a man to make experiments upon himself and then go and preach a universal rule. I maintain that that ignores the very first principle of the art of medicine—viz. that disease is in all cases individualised, and that we have to treat the *individual* and his *malady through him*. If it were not so, we should certainly by now be treating disease by a code of rules, and how happy should we not be!'

Meat and beer for the average Englishman.—'I believe that diet is as much a product of evolution as man himself, and that food that is universally adopted by any race is, on the whole, that which its unconscious instinct has found to be best fitted to it under

the various conditions of its environment, chiefly climatic. And, for ourselves, that leads me to a strong belief in the *use*—the use, mind you don't mistake me, not the abuse—of meat and beer for the average Englishman; but I am inclined to think that a study of a nation's diet, and its changes, may give some indication of the slow changes of constitution that it seems to me must come about in the long course of years.'

The lecturer did not think that all uric-acid-passers should live on bread and vegetables and fruit exclusively and never touch beer. 'Therefore it is,' he said, 'that I ask you to turn the facts round and look at them the other way before you accept unhesitatingly any diet theory of uric acid. And I think, if you do, whatever may be true for the *individual* will prove the *exception* for the *majority*; and at any rate I am sure that looking at both sides of the question will be instructive to ourselves and not without advantage to our patients.'

The uric acid theory.—Dr. Alexander Haig, physician to the Metropolitan Hospital, has written a very clever work upon **uric acid** as a factor in the causation of disease; he has also lately written ('Brit. Med. Journ.' Dec. 8, 1894) a paper upon this subject, with both of which we propose to deal in our next issue.

THE MECHANICAL THEORY OF GOUT

Dr. Ralph states that his convictions are on the side of the mechanical exponents of the disease, rather than with the chemical theorists. He called attention, in a paper read before the Islington Medical Society on October 23, to the abuse of the term 'gouty' that had lately sprung into use. There was no evidence, he thought, to show that uric acid was necessarily formed to any extent in the human body as an antecedent to urea. Sir William Roberts considered that the daily excretion of uric acid might merely represent a *vestigium* of the solid urines of lower organisms.

In a case of simultaneous double obstruction from uric acid calculi which Dr. Ralfe had seen with Dr. Brookhouse of Brockley, the patient did not pass a single drop of urine for four days before relieved by operation. During that period she was in her usual state of health, there being no evidence of an accumulation of uric acid in the blood or tissues.

These and other considerations proved, Dr. Ralfe considered, that uric acid was a consequence, not a cause, of gout. He thought that, in health, uric acid was destroyed or used up at the time of its formation; and that during the gouty paroxysm the uric acid was not used up, but, like sugar in diabetes, passed freely into the circulation, and, being highly insoluble, was deposited in the extra-vascular tissues.

Many disturbances attributed to uric acid might be caused, not by the positive addition of a poison, but by the withdrawal of some inhibiting agent, as was seen in the destruction of the thyroid gland and the development of myxœdema.

With regard to dietetics, the various views that existed showed how little the chemical theories are in accord. One condemned the carbohydrates, especially sugar; another objected to hydrocarbons; while a third theorist tabooed an animal diet; so that the gouty patient, if each view were correct, would be precluded from any food at all.

No one should attempt to treat an outbreak of acute gout by repressive measures; all that should be done was to attend to the evacuation of the bowels, to relieve pain, and encourage the arthritic outbreak. In the chronic form the treatment was more difficult, as the patient's general health was much enfeebled.

Dr. Ralfe decried the universal and indiscriminate use of alkalis at present in fashion. He advocated the use of eliminating waters such as Carlsbad for the plethoric, or Homburg for the more feeble; whilst moderate exercise, such as riding and carriage exercise, restored the enfeebled circulation in the extra-vascular parts.

GOUT AND THE TREATMENT OF OBESITY

It has been thought that the treatment of obesity by the withdrawal of the carbohydrates and the substitution of a more nitrogenous diet is likely to produce an accumulation of uric acid in the body, and thereby to act as a factor in the production or as an absolute cause of gout. We have had some conversation with Dr. Towers Smith upon this subject.

We asked him whether his treatment was at all conducive to gout. He said no, he had never known any such result follow. On the contrary, he had known it to be even beneficial in cases of gout.

One case particularly he mentioned, of a gentleman aged about 45 who had suffered from gout for

years, having several attacks every year. The patient was at the time very anxious regarding the result, but having followed out Dr. Towers Smith's treatment very carefully he reduced his weight from 19 stone to about 14, and since then—now $2\frac{1}{2}$ years—has not had a single attack of gout.

SILVER AND SYPHILIS¹

A clinical lecture under this heading was recently delivered at the National Hospital for the Paralyzed and Epileptic, by W. G. Gowers, M.D., F.R.S., the more practical points of which are as follows:—

Diagnosis of syphilitic tumour of the brain.—The patient presented indications of a sub-chronic local cerebral lesion, with headache and optic neuritis. These two cerebral symptoms with the onset indicate that the local process is a growth. Moreover, there was a history of active syphilis, and we know that whenever we have evidence of a local growth of rather rapid course in the subject of syphilis the probabilities are very great that the growth is syphilitic. They are much less if the growth is very chronic, and that point is important.

Staining of skin from internal administration of silver.—The patient had been treated erroneously in the first instance with silver years ago, and subsequently by a course of mercury which cured him of his actual syphilis. The staining, of course, remained, and was a permanent disfigurement; and Dr. Gowers cautioned his hearers about using this remedy for prolonged periods.

In epilepsy he had not seen it do any good, but it can, he thinks, unquestionably do good in **gastric affections**, especially when pain occurs before meals; that is, when the pain coincides with the absence of food.

The patient, who was present, had been under his observation for twenty-four years, and exemplified the fact that although syphilis might be cured by appro-

priate treatment, yet it would generally leave some permanent mischief from destruction of tissue—if that tissue be in the skin only, leaving a scar, or, if in the brain, leaving impairment of nerve tissue.

In the case described the effective treatment of the syphilis had been early enough to stop the neuritis before very grave damage was done to the fibres of the optic nerves, but some impairment of sight remained. There was also some loss of muscular power, and hemi-anæsthesia, which had been complete, now only remains partial.

Symptoms of local brain lesion are never due directly to the syphilitic process.—In true syphilitic affections, those which can be removed by iodide of potassium and by mercury, the syphilitic process is altogether outside the nerve elements themselves. These suffer secondarily from compression of a syphilitic gumma as they would from any other tumour. The nerve fibres may be inflamed by the pressure, but this inflammation is not a specific syphilitic process.

If these secondary processes continue until absolute destruction of tissue occurs, the loss of function will be permanent; but if the disease be cured before such destruction, then recovery of function, complete or partial, may take place.

GESTATION AND MENSTRUATION

GENERAL PHYSIOLOGY AND PATHOLOGY, ILLUSTRATED BY THE STUDY OF GESTATION AND MENSTRUATION

Delivered before the Glasgow Obstetrical and Gynaecological Society on November 2, 1894,

By ROBERT BARNES, M.D. LOND., F.R.C.P.

Consulting Physician to St. George's Hospital and to the Royal Maternity Charity.

THIS address¹ teems with thoughtful suggestions and valuable observations, of which the following are more especially applicable to practice.

¹ *British Medical Journal*, December 1, 1894.

¹ *Lancet*, Dec. 1, 1894.

William Harvey

BORN 1578. DIED 1657

The portrait on the opposite page is from an engraving by J. HALL, after the painting by CORNELIUS JENSEN. It appears as a frontispiece to the work, 'Opera Omnia, a Collegio Medicorum Londinensi edita.'



Com. & Senon. pueri?

J. Hall sculp. Londini

Guilielmus
COLLEG. MEDICOR.
Epictara Archetypa in
Londinensis



Harveius
LONDIN. SOCIUS.
Adibus Collegi Medicorum
asservata

A factor in the production of puerperal septicæmia. The discharge of blood attending labour, and that which is known as the 'lochia,' is strictly physiological. It is the first and immediate step in the restoration of the single circulation following the casting off of the embryo. By this discharge the excess of circulating blood is got rid of. But this is not all. If the loss of blood exceeds the physiological need, the force of absorption is accentuated, a vacuum force is added which favours the sucking-in of any fluid matter from the genital canal, from the intestinal canal, and also of any fluid or aerial matter existing in or brought to the lungs. This, then, is a prime factor in the production of puerperal septicæmia. In physiological degree hæmorrhage and absorption lead to the healthy disposal of effete matter.

The safety-valves of vascular tension during pregnancy.—The predominant force of the circulation during gestation being constructive and eccentric disposes to exudation and hæmorrhage. The vascular tension is moderated by increased secretions, as of urine, saliva, and other mucous discharges. These failing to maintain the normal equilibrium, serous effusions into the serous cavities, cellular tissue, and even into parenchyma of organs, and external hæmorrhages, chiefly from the nose, lungs, stomach, and intestines, take place. Thus abortion may be averted, and when abortion occurs this may also be regarded as a conservative event. These safety routes failing, internal hæmorrhages into the structure of organs may occur, as into the brain, causing apoplexy. The lesson this teaches is clear and decisive; it is to relieve the 'physiological plethora' in some cases by venesection, a proceeding too much neglected of late, or by bringing the pregnancy to an end. The same argument applies emphatically to the treatment of convulsions and some cases of mania. Strictly associated with the maintenance of the physiological equilibrium is the action of the lungs and skin.

Albuminuria, physiological in origin.—An instructive lesson may be drawn from the direct observation of the mucous membrane of the vagina and rectum. This membrane reveals to the eye the action of extreme vascular tension upon the peripheral structures. We see deep congestion, epithelial desquamation, mucous exudations, and frequently prominence of the superficial veins. Corresponding with this we see the

darkening areola and distension of the breast, and often secretion of milk. We may surely draw from what we thus see the conclusion that similar conditions are brought about in the mucous membranes that lie beyond our sight. This is certainly true of the kidneys. We may see epithelial scales in the urine of pregnant women without albumen as well as in cases where albuminuria existed. It is useful in this connection to bear in mind the peripheral mucous membrane and skin congestion attending scarlet fever. Many years ago I described a form of leucorrhœa¹ in children with epithelial exudations persisting after recovery from scarlet fever. Reflecting on these parallel conditions, we cannot fail to be impressed by the frequent occurrence of albuminuria in scarlet fever, and the light thus thrown upon the origin of this affection. That it is an expression of high arterial tension is confirmed by the occasional presence of blood in the urine. This seems to show that the albumen comes direct from the blood by exudation. That exalted tension is the main factor and that organic change of tissue is not necessary is further proved by the fact that complete recovery commonly follows when the pregnancy and attendant high tension come to an end. And further confirmation is seen in the establishment of persistent albuminuria and change of tissue if the tension be sustained too long or be repeated. This is strangely neglected by the ordinary physician.

Jaundice and diabetes.—By strict analogical deduction and clinical control we may in like manner explain the occurrence of jaundice and diabetes. These disorders arise and disappear with pregnancy, proving that they are not dependent for their origin upon change of structure. Of late years it has been recognised that diabetes is sometimes temporary; and this condition has been described as 'physiological glycosuria.' But this fact has long been familiar to those who have studied the phenomena of pregnancy. I have known several cases of women who had diabetes in every pregnancy, and only then. The quick, almost sudden, disappearance of albumen in pregnancy when the excessive vascular tension subsides is enough to prove that it is not necessarily the result of inflammation, at least in its origin. Dropsy and œdema are evidence that the ordinary excretory organs are overpowered, and the balance between endosmosis and exosmosis in the capillary system is lost. Effusion also takes place in the brain.

¹ *Medical Gazette*, 1850-51.

I have noted distinct appearances of œdema in the brain in women who had succumbed under albuminuria and eclampsia. The action of poisoned blood upon the exalted nervous tension may produce delirium, convulsions, and insanity. These disorders may be in many cases relieved by bleeding or by abortion, and thus removing the cause of the exalted nervous and vascular tension, and restoring the force of absorption with a quickness that proves the sources and cause of the affection. This history indicates the route of research to be followed for causes in other diseases independent of pregnancy.

Blood changes.—Embolism and thrombosis are phenomena strikingly illustrated by the action of the blood in pregnancy. In excess of fibrin the blood resembles the blood of inflammation. It 'cups' when drawn, and so is prone to coagulate in the vessels. This occurs under various conditions—such as the presence of toxic matter. I have known it to occur, leading to gangrene of the legs, under the influence of strong emotion. One remarkable manifestation of vascular tension and hyperfibrinated blood is seen in effusions and thrombosis in the eye. Liebreich has figured it.

Nervous disorders: insanity.—Just as we have seen that albuminuria, diabetes, and nervous diseases may be cured or averted by bringing pregnancy to an end, so we may find that similar and other diseases, persisting so long as these diseases are treated as essential morbid entities, are quickly relieved or cured by curing the associated causative disorders of the genital system. How often do we see hysteria, and even insanity, long treated on general principles persist, and be promptly relieved when the provoking disorder of the sexual organs is removed!

Climacteric disorders and insanity.—An error into which many alienists fall is to look upon cases which might strictly be considered examples of climacteric nervous disturbance as really dependent upon disease of the nervous centres. Under this error many women are secluded as lunatics who are in reality going through an epoch of strained physiological trial, and who are thus placed in imminent danger of drifting into the domain of pathology. I have discussed some of the relations of nervous diseases and insanity to gestation on other occasions. I will simply here repeat the strong opinion I have formed from clinical experience that many cases of mental disorder, ranging

from excessive psychical, emotional, and diastaltic mobility to the graver forms of insanity, are due to functional disorder or disease of the ovario-uterine system. Although this truth has been more fairly recognised of late by some physicians who study mental diseases, there still remains the fact that women labouring under insanity do not receive the benefit of that first fundamental clinical law which directs interrogation of all the functions and all the organs. If this law were duly observed, not a few women certified as insane might be cured; and many more might be relieved of peripheral irritation which, if not mainly causative of their insanity, is certainly an aggravating factor. Surely insane women have as just a claim to relief from the distress which arises from ovario-uterine disorder as have those whose intellect is sound. The logical corollary from this argument, which I have advanced elsewhere, is that a skilled, thorough inquiry should be instituted into the bodily condition of women confined in asylums.

The value of lactation.—Let us now trace briefly the second great force evoked when gestation is accomplished—namely, the sudden fall of tension and the substitution of absorption for construction.

If the physiological process goes on smoothly the redundant tissues undergo fatty metamorphosis. This converted matter is partly eliminated by secretion or excretion, and part goes to the formation of milk. Here we see a beautiful illustration of the old aphorism: 'Nature does nothing in vain.' Now, if any disturbance or defect in the course of lactation occur, the organs losing their proper mode of relief, the process of fatty metamorphosis is arrested, involution or return to the ordinary condition is hindered, and the physiological hypertrophy passes into pathological hyperplasia. In this way we may trace the origin and development of tumours, especially of the homologous kind, and other structural alterations. Fatty metamorphosis and elimination give way to fatty degeneration. This is the history of many cases of fatty heart, fatty liver, and Bright's disease, and where this change does not take place there is danger of persistent enlargement of the heart. I have traced many such cases following upon the failure of lactation.

Absorption from the vagina, its practical use.—I have for many years turned the natural and intensified absorption-force to therapeutical profit by injecting iodine and other agents into the uterus and vagina.

Thus I have seen hyperplasia and hypertrophic enlargements of the uterus dispersed. So active is the absorption process through this route that the whole system is pervaded. The starch test applied to the skin and saliva reveals the permeation of iodine. I confidently believe that this method admits of further use in the treatment of other than uterine diseases. . . . In many cases it may prove more practicable than subcutaneous injection.

SIR JOHN RUSSELL REYNOLDS, BART., M.D.,
F.R.S., AND SIR JOHN ERIC ERICHSEN,
BART., F.R.C.S., F.R.S.

The medical profession is honoured by the bestowal of a Baronetcy upon the President of the Royal College of Physicians, and upon a past President of the Royal College of Surgeons.

This recognition of scientific attainments and eminent positions in their profession has been for some time looked for, and we hope it may, in both cases, be but the stepping-stone to that elevation to the peerage which we confidently expect as a medical distinction in the future.

Congenital Deformities and Parturition

CONGENITAL deformities have a threefold interest. First, as regards their origin, this belonging in a great measure to the study of embryology. Secondly, as regards their bearing upon delivery. Thirdly, as regards the opinion to be given as to the possibility of cure or amelioration.

The second point of interest is probably that of the greatest importance to the practitioner, as, during delivery, recognition of peculiarities may be a matter of considerable moment.

INTRA-UTERINE AMPUTATIONS

The following case (fig. 1) occurred in the practice of Mr. H. M. Lawrence, of Hadlow, Tunbridge. The child was born in May 1891, and at the time when the photograph was taken, of which the figure is a copy, was six months old.

There was considerable retardation of development of the right leg, the exact notes of which are not given, but there were signs of constriction above the right ankle. On the left leg can be seen in the photograph the marks of constriction, which had been more pronounced at the time of birth. In this case, as in



FIG. 1.

the majority of others recorded, there were some other signs of an interference with the natural process of development. There was a conjunction between the index and little fingers of the right hand, in the form of a bridge about a quarter of an inch thick between the centres of these fingers—a condition which might possibly have been produced by intra-uterine inflammation.

Another instance of this deformity in which absolute amputation had occurred was seen by the writer on December 9, 1891. This was a patient of Dr. A. K. Willis, of West End Lane, Hampstead. The child was 1 year and 7 months old, and the right leg terminated just below the knee, leaving a very small stump, over which, however, the child had great power. He was getting about on his knees freely, and was also able to stand on one leg. There was a central cicatrix on the stump, quite according with the general aspect of these cases.

The age of the mother at the time of the child's birth was 40 years. There had been four other children, all free from deformity, none born since. At the time of birth nothing of the lost limb was observed to come away from the uterus. There were no membranous bands seen.

Various explanations of these malformations have been given, but the generally accepted one is that there is some inflammation of the membranes, which have contracted in the shape of cords encircling the

limbs. Regarding this subject it is interesting to note that in some cases the umbilical cord has produced severe constrictions.

Fig. 2 represents such a case. It was a foetus of three months old, and was sent to Dr. Montgomery, of Dublin, by Dr. W. O'B. Adams. The coiling of the umbilical cord round the left leg has deeply indented



FIG. 2.—CONSTRICTION OF LEG BY PRESSURE OF THE UMBILICAL CORD. (Montgomery.)

it. The cord had been removed from the constricted part to a higher position, so as to show the depth of the constriction.

Dr. Montgomery wrote upon the whole subject in 'The Journal of Anatomy and Physiology,' under 'Foetus,' vol. ii., p. 324; and Simpson, of Edinburgh, also published a paper in the 'Dublin Medical Journal' of that time.

Dr. Montgomery, in describing the various recorded cases, referred to one described by Zagorsky (Memoir of the Imperial Academy of Sciences, St. Petersburg, 1834).

Fig. 3 is copied from an illustration of this case. There was a deficiency of the 'right leg, the thigh ending in a rounded and cicatrised stump, in the centre of which was a small projecting point; from



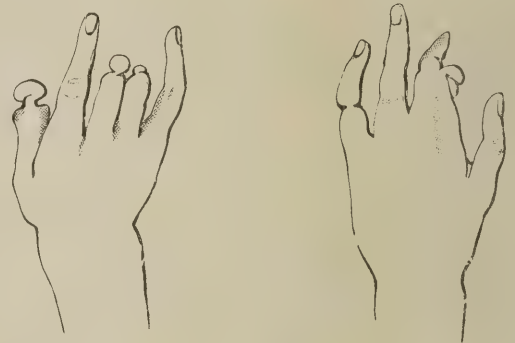
FIG. 3.—INTRA-UTERINE AMPUTATION BY MEMBRANOUS BANDS. F, Foot of right leg. (Zagorski.)

this was prolonged a slender threadlike membrane, strong in proportion to its size, that ran directly

across to the left leg, which it encircled, a little above the ankle, like a tightened ligature.' This ligature had formed a deep depression, while the portion below was tumefied. 'From about the middle of the transverse threadlike membrane, a small body of an oblong form was suspended, which, on examination, proved to be a right foot perfectly formed, as its general outline and five toes demonstrated, but not larger in size than the foot of a foetus of the tenth or twelfth week.'

With regard to the cases where the amputated portion has not been discovered, it is suggested that the part may have been so small as to have escaped undiscovered, or involved in the membranes, or buried in the coagula. It will be remembered that the separation may have taken place at a very early period of development, as in the case quoted above and therefore we have very small size.

Figs. 4, 5, and 6 are further illustrations of this deformity.



FIGS. 4, 5.—INTRA-UTERINE CONSTRICTION AND AMPUTATION BY MEMBRANOUS BANDS. (Erichsen.)



FIG. 6.—STUMP OF HAND AFTER INTRA-UTERINE AMPUTATION. [BUDDING OF RUDIMENTARY DIGITS. (Annandale.)

The following references to this subject are noted in Neale's Medical Digest (No. 1539 : 5); 'Brit. and Foreign Med. Chir. Rev.' vol. i. 1857, p. 560, vol. ii. 1863, p. 270; 'Medical Times and Gazette,' vol. ii. 1853, p. 604, also vol. i. 1878, p. 163; 'Brit. Med. Jour.' vol. ii. 1881, p. 78.

CONGENITAL MALFORMATION OF RIGHT HAND

The following case occurred in the practice of W. Clement Daniel, M.D., Epsom.

This part was soft and flabby. There was no power of approximating the two sides.

A well-formed index finger with good movement.

Projection of bone at this part, a rudimentary thumb, but it seemed to be fixed by bone to index finger.

There was slight up and down movement of this projection, which was apparently a rudimentary little finger.

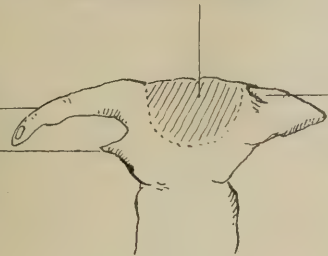


FIG. 1.

The soft part indicated above, consisting chiefly of redundant skin, was removed, and the two sides approximated, with the result as shown below by Fig. 2, drawn a few weeks after the operation.



FIG. 2.

The hand retained its shape subsequently, without strapping.

CONGENITAL DEFORMITY OF ARMS

OCCURRING IN THE PRACTICE OF H. CAMPBELL POPE, M.D.

There was no history of deformity in either the father's or the mother's family. The mother had seven brothers and sisters. The mother had a severe mental shock at the sixth week of pregnancy, according with the period of development of the affected parts. The shoulder joints were normal. The distal ends of the humeri were enlarged and oblique, as shown in the drawings. The right arm is not quite so short as the left, and here the wrist has more movement, and the

hand bends downwards and backwards. There seems to be a total absence of forearms.

Treatment.—Separation of the closely united two outer digits by Norton's flap operation; bridging over the cleft and so preventing reunion.



The Practitioner's Note Book

EDITED BY RICHARD NEALE, M.D.

Perforation by typhoid ulceration of intestines in very early life.—Mr. S. R. Schofield reports a case of a child aged 1 year 9 months, in whom perforation occurred from an ulcer of the ileum, ten inches from its lower end. There were many other ulcers in the neighbourhood. The chief symptoms recorded were: vomiting, rapid loss of flesh, tympanites, diarrhoea, the motions being slimy but free from blood. There was no typhoid eruption.

The case was under the care of Dr. F. Dawtrey Drewitt, at the Victoria Hospital for Children.

The patient was admitted April 12, 1894, and died April 16.¹

Dr. Hawkins² records six cases occurring in children from 5 years old to 14.

Relief of the spondylitic spine from the concussion of walking.—Dr. J. C. Schapps, of Brooklyn, read a paper thus entitled. He said that in order to reduce to a minimum the concussion of walking, he had been in the habit of placing thick rubber heels on the boots worn by his patients. He had adopted this practice for the past two years, using rubber heels half an inch thick. These should not be nailed on, but should be stitched to the shoe.³

¹ *Brit. Med. Journal.*

² *Lancet*, vol. ii. 1893, p. 245.

³ *N.Y. Med. Journal*, Oct. 1894.

Rupture of bowel from using hose-pipe as an enema.

In the 'New York Medical Record' for November 17, 1894, the case is referred to of a man dying from peritonitis from rupture of the bowels produced by administering to himself an enema with the hose-pipe of his bath-room. He turned on the tap too far, and the force caused the rupture.

In the 'Lancet,' 1887, vol. ii. page 725, twenty-five cases of bowel lesion, due to the improper use of enema apparatus, are noted by Dr. Achilles Verdmann of Basle. The lesions were generally found on the anterior wall of the rectum near the anus.

Syme reports cases of perineal abscess and other injuries caused by injudicious use of enemata in an instructive paper.¹ Koester² gives an able *résumé* of similar cases that have occurred in his practice.

An interesting observation in connection with this subject, though scarcely to be ranked amongst the dangers occasionally arising therefrom, was made by Burford in 1888, namely, a septicæmic rash, which in some cases has been mistaken for scarlet fever. Suckling, Staveley, and Confland have, during the present year, noted similar cases. The explanation appears to be that the water of the enemata dissolves some of the faecal ptomaines, and so renders them easy of absorption.

Nitrate of silver in tuberculosis.—Dr. Crocq, of Brussels, reports ('Lancet,' vol. ii. 1894, p. 755) twenty-one cases of tuberculosis treated with nitrate of silver, the results seeming to him most satisfactory. The drug, he asserts, increases appetite, improves digestion, diminishes cough and sweat, and possibly acts on the bronchi and pulmonary cells by causing them to contract, as it does also the smaller bloodvessels, thus diminishing the supply of blood to the diseased parts. The dose he gives is from one-seventh to one-third of a grain, and he is convinced that this drug has a very great influence on tuberculosis.

In respect to this remedy it is interesting to note that in the 'Medical Times and Gazette,' vol. i., 1857, p. 658, Mr. P. A. Brady, of Bradford, wrote: 'Ten years ago I discovered that nitrate of silver was an absolute specific in phthisis. I have since fairly tried it in more than 100 cases, and can safely say that nine out of ten cases will recover under its use, even if commenced at a late stage of the disease. Cures have been effected in very advanced stages, but, if tried in the last stage, although the symptoms may seem to be suspended for a time, yet the patient ultimately succumbs. In pure laryngeal phthisis it will palliate but not cure. The doses I give are $\frac{1}{4}$ or $\frac{1}{6}$ of a grain of the nitrate, with one of Dover's powder, thrice a day.'

Mr. Robert Martin, of Gilford, County Devon, in a recent private letter, states that, having seen notices of the value of nitrate of silver in phthisis, he gave it a trial in three severe cases, with surprisingly good results. Care must be taken not to continue the drug for too long a period, lest argyria (skin-staining) be set up.

¹ Lond. Med. Rec. Dec. 1878, p. 22.

² Lancet, vol. ii. 1893, p. 245.

Therapeutics

Pilocarpine for acute articular rheumatism.—M. Drappier has used pilocarpine as follows: male aged 45. The salicylates had been given in various doses up to 270 grains of sodium salicylate, and had gradually caused gastric troubles. It was used in injections, but failed. Antipyrine was then given, but that also failed to relieve. Vapour, and then hot-air baths, had little effect. A subcutaneous injection of nitrate of pilocarpine ($\frac{3}{10}$ grain) was given. This was followed by profuse sweating and some sleep. Pain came on on the following day, but was less intense. The injection was repeated, and the patient slept all night.

This treatment was continued, and the pain ceased on the fourth day, but the injections were continued for two days longer, when all inflammatory symptoms had subsided. The patient had no relapse, was entirely cured, and returned to work.¹

Acute coryza.—Brandt's remedy, said to very popular in Germany, is as follows: Pure carbolic acid, ammoniacum, each, nine parts; alcohol, three parts; distilled water, twenty parts. A little sponge wet with this solution is to be placed in a paper cone, through which the vapours are to be inhaled by the nose.

The following procedure, recommended by Unna, of Hamburg, sometimes gives very good results: At the outset of the coryza the nasal passages are to be sprayed with a small quantity of a mixture of one part of ichthyol and one hundred parts each of ether and alcohol. The application of the spray is to be made only once.

Schrötter recommends practising antiseptics of the nasal passages by moistening them several times in the course of a day with the following solution, previously warmed: Corrosive sublimate, two-thirds of a grain; Sydenham's laudanum and cherry-laurel water, each, twenty drops; distilled water, four ounces and a half.

The following powder is recommended: Boracic acid, seventy-five parts; salol, twenty-five parts; menthol, one part; cocaine hydrochlor., two parts and a half. These ingredients are to be reduced to a fine powder, and a good-sized pinch to be snuffed about once an hour. This powder, which is at the same time antiseptic and analgesic, is said to cause the sneezing to cease immediately, to restore permeability of the nose, and often to put a stop to the coryza in the course of twenty-four hours.²

Antipyrin mandelate in whooping cough.—This new preparation is made by uniting antipyrine and mandelic acid, forming a crystalline body.

¹ Journal des Sciences Médicales de Lille, Sept. 15, 1894 (New York Med. Jour.).

² New York Med. Jour., from La Presse Médicale, Sept. 15.

Dr. Rhen¹ reports his observations on over fifty cases. Given in the declining stages of pertussis, it quickly checked the cough, improved the appetite, and stopped the vomiting. The course of the disease varied under this treatment from three to five weeks. The dose for infants under one year was $\frac{1}{20}$ gr. to $\frac{1}{10}$ gr. For children between three to five years $\frac{1}{4}$ gr. to $\frac{1}{2}$ gr. There were no bad symptoms from its use.

Antipyrin in large doses for chorea.²—The conclusions deduced from Dr. T. McCall Anderson's paper upon this subject are as follows:—

1. Antipyrin is not the dangerous drug which some observers have led us to suppose.

2. It may be given with safety in large doses, even in the case of children (as a rule), although *the initial dose must be small*, and slowly and cautiously increased, the patient being carefully supervised.

3. In large doses it often yields surprisingly good results, and in chorea it is the only medicine from which cures may confidently be expected.

Bad effects have probably arisen from—

1. Impurity of the drug, or,
2. Too large an initial dose, or,
3. Idiosyncrasy.

Severe chorea in a boy aged 13.—On October 11, 1892, three doses of 5 grains were given without bad effect, and then the amount was rapidly increased. On October 13 he had 30 grains; on the 15th 45 grains; on the 17th 60 grains, and so on, until November 14 he was taking 50 grains thrice daily. He was about a fortnight under treatment before the symptoms began to abate. From that time improvement was continuous. He was well on November 25, when he left the Western Infirmary (Glasgow). He was to diminish the dose very gradually, and up to December 6 he remained perfectly well.

Other cases are recorded, but there is no statement in the paper of the result after absolute cessation of the antipyrin.

[Dr. McCall Anderson has since informed me by letter in answer to my inquiries as follows:—

'I have treated a good many cases . . . in the same way and with the same success. The patients remained well for many weeks after cessation of the treatment, but I have not been able to follow them for any lengthened period of time. It is well to continue the treatment in decreasing doses for some weeks after all traces of chorea have disappeared.'—ED.]

Dangers of naphthol as an application to the skin.—Baatz (*Sem. Méd.* October 24, 1894) has seen acute nephritis follow friction with an ointment containing 2 per cent. of naphthol beta in two brothers, aged 6 and 8 re-

spectively. The remedy was applied for scabies. This was cured, but three weeks afterwards albuminuria with œdema of the lower limbs came on. One of the boys died, and the diagnosis of nephritis was verified by *post-mortem* examination. In neither case had albuminuria previously existed, nor was there any history of an affection which could have been the starting-point of nephritis. The author therefore warns against the use of naphthol beta as a remedy for scabies, in spite of the powerful curative effect which it has on that disease.—*Brit. Med. Jour.* Dec. 29, 1894.

PRESCRIPTIONS

FOR ACNE VULGARIS

1. \mathcal{R} . Naphthol 10 parts
Vaseline,
Saponis viridis, aa . . . 20 parts
Sulphur precip. . . . 50 parts
M. et fiat pasta.
2. Camphor trit.,
Vaseline, aa 10 parts
Pulv. cretæ albæ 5 parts
Saponis viridis 15 parts
Sulphur precip. . . . 50 parts
M. et fiat pasta.
3. Resorcin,
Amylis puri, aa 5 parts
Vaseline 15 parts
Zinci oxidi 5 parts
M. et fiat pasta.

These pastes can be applied until inflammation follows, or can be washed off in a quarter to half an hour, and can be followed by powders.

The first two are best used in the latter manner, the third is milder for the mildest form of acne.

Where single pustules are found, the following wash is used:—

- Acid. acet. conc.,
Tinct. benzoës,
Spt. camphoræ, aa 6 parts
Spirit. q.s. ad 100 parts. M.
Sig. Apply with sponge night and morning.
(*'The Therapeutic Gazette,' Philadelphia.*)

New Apparatus

BY THE EDITOR

THE TOE POST

Boots to correct distortion of the great toe.—One of the most prevalent distortions to which civilised humanity is liable is Hallux Valgus—or, in other words, the bending

¹ *Munch. med. Woch.* Nov. 13, 1894.

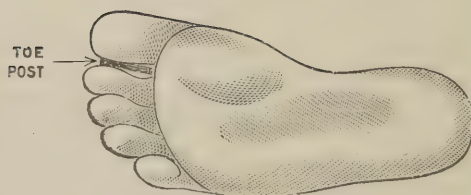
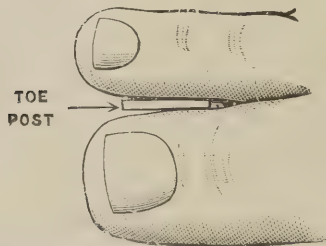
² *British Medical Journal*, December 1, 1894.

of the great toe towards the others. The associated evils of bunions and corns are very troublesome affections, and the deformity is not easy to cure surgically. The shape of the boot is a matter of great importance, and the necessity of a straight inner side to the boot has been frequently urged.

The form of sole which I have elsewhere advocated will, in many instances, allow the toe to assume its natural position. It is not necessary to have a great width at the toes of the boot if the foot is not very broad, so that the very ugly form of boot commonly made for this affection is not necessary.

The length of the boots is a matter of very great importance. They should be at least half an inch longer than the ordinary bootmaker thinks necessary. Sometimes we meet with contractions holding the toe in its false position, and such cases, of course, require operation before the toe can be released.

The latest invention is a toe-post, of which we give illustrations below. The boots are made by Messrs. Holden Bros., 223½ Regent Street.



The **toe-post** is a vertical steel plate, leather-covered, inside the shoe, having for its duty the pressing back of the big toe into its true line. The **toe-post** is said to be valuable in the cure of bunions, corns, stiff toe-joints, overlapping toes, hammer toes, paralysed toes, gout, and rheumatic gout.

It is necessary to have socks or stockings with a separate department for the great toe.

Ingrowing great-toenail.—This affection may also be caused by crowding the toes together in badly shaped boots, but Dr. E. H. Root, of the Chicago Hospital for Women and Children, writes to the 'New York Medical Journal' (Dec. 1, 1894), recording a case in a new-born child, and another in a patient who had been bedridden from paraplegia for over a year—the nail having begun to grow in during that time.

Many and severe are the remedies which have been devised for this trouble; but nothing will be found more effective, and at the same time more simple, than periodical cutting away, with scissors, the part of the nail which projects into the flesh. This may be effected without giving the patient any severe pain, and a little moist soap plastered on the part will ease any discomfort which may be left.

Prehensile feet among the Japanese.—When the feet have perfect freedom of action, that is when boots are not used, we find an absence of the above-named disorders, and great power over the movements of the feet follows. 'The art of "getting there with both feet," which Japan has been illustrating in her treatment of China, seems to be a natural endowment,' says the 'Journal of the American Medical Association.' 'M. Michaut, the anthropologist, who has been investigating the subject, finds that the Japanese have marvellous address in the use of their feet as means of prehension. These members possess extraordinary mobility; the first metatarsal bone is separated from the second by an interval which may measure from eighteen to twenty millimetres, and the ball of the great toe may be made to touch the two adjoining toes. The Japanese rest on their knees, the feet in forced extension lying on the dorsum inclined inward and crossed one on the other, thus forming a little bench on which the pelvis rests. All the Annamites—the Cochin Chinese, the Tonkinese, and the Annamites properly so called—also have a

remarkable separation of the great toe amounting to from three to five millimetres, and prehension also is possible. This cannot be attributed to their foot-wear, as might be the case with the Japanese, since the Annamites either go barefoot or wear sandals; nor to adaptation to environment, because they are inhabitants of the plains. History tells us of the kingdom of Giao-Chil, or the people of the "bifurcated toes," who presented this ethnic peculiarity of widely separated great toes in its maximum degree, and examples are still met with—in some families the anomaly being hereditary, and descending usually from father to son.'—*New York Med. Jour.*, Dec. 1, 1894.

THE 'HERCULES' HORSE-ACTION SADDLE

Messrs. Vigor & Co., of 21 Baker Street, have introduced their patent exercising saddle, mounted on a dummy horse, for the use of those persons who, having been recommended by their medical advisers to take horse exercise, are unable to do so, either because they cannot afford it, or for other reasons.

The owners claim for their invention that its action—or rather the action produced by the efforts of the 'rider'—closely simulate the movements of the horse. The apparatus can be so arranged that the movements represent galloping, trotting, or cantering.

After trying this machine, I formulated the following remarks.

When the farmer competed with the Italian actor in imitating the squeaking of a small pig, the audience applauded the actor and hissed the farmer. The actor's imitation was artificial, the farmer's representation was produced by a real pig concealed beneath his smock. Upon



the same principle, I hope the public will applaud and use the 'Hercules' horse, and consider him even more like

what a horse should be than the real animal, because there can be no doubt the exercise will be beneficial.

Having personally put this artificial horse through his paces, I have come to the conclusion that by working hard the rider may obtain a thorough stirring up of his liver, and get good general exercise of his body; and if he is not



much of a horseman, and can imagine a good deal, he may succeed in persuading himself that he is taking horse exercise.

For myself, I would rather walk, but this is a purely personal view of the subject, and I have no hesitation in recommending the 'Hercules' horse-action saddle as an excellent substitute for real riding when the latter is unattainable.

Veterinary Notes

ALMOST every medical practitioner living in the country is interested, more or less, in horses and their ailments; and we have therefore thought that some remarks upon the more common mishaps of the stable will be acceptable.

A torn nostril.—It is not an uncommon accident for a horse to tear his nostril open by getting it caught either on a nail or other prominent object. The ordinary spring hook which is attached to the rack chain is the most frequent cause of this accident, the spring getting broken and leaving the point of the hook exposed. This chain not being used at night, but being left loose in the manger, the horse frequently plays with it, and hence the mischief.

The figure below shows a case of this kind which happened some weeks ago. The part from A to B was completely separated, as shown by the dotted line, and the detached portion hung down, being left attached from B to C. The parts were sewed together within fifteen minutes

of the accident, and the wound was kept as aseptic as was thought practicable by means of a solution of carbolic acid, applied on lint and retained by a bandage.

It may seem to the reader a very simple matter to carry this out with success, but the writer is informed by Mr. William Reekie, M.R.C.V.S., that not more than sixty per cent. of these cases unite by first intention, even when sewed together immediately after the accident, and that if the union does not take place at once, it has generally been found useless to do anything else than cut off the partly detached piece.

In the instance we refer to union did not take place by first intention, and four days later, when the stitches were removed, the parts came asunder; thereupon the edges were refreshed, a thin slice being taken off the whole wounded surface, both above and below, and the parts very carefully brought together by sutures transfixing the whole thickness of the cut surface, both above and below, as shown in the figure.



MUZZLE OF HORSE

The parts were kept aseptic by applications of carbolic acid solution (1 in 40), as in the first instance. By keeping the head of the horse tied up, and by feeding with corn only and by hand, for three days, the result has been perfect union.

The difficulties of dealing with this accident to a horse depend upon the constant movement of the part, and the contamination of the wound by dust and dirt. This is best obviated by turning him round in the stall, and not allowing him to lie down until we are sure that union between the edges has taken place. When lying down the horse frequently moves his nose amongst his bedding, and this disturbs the wound. When feeding by the hand is impracticable, a plain manger—*i.e.* one without sides—is advisable.

THE TREATMENT OF INFLUENZA IN HORSES

By WILLIAM REEKIE, M.R.C.V.S.

Influenza *per se* is a very simple disease to treat. Being a specific fever it runs a distinct and regular course. All that is wanted in a simple case is a good roomy loose box,

and plenty of clothing and good nursing. Medicinally, for an average-sized hunter or carriage horse, a draught composed of Magnes. Sulph. \mathfrak{z} ij and Spiritus Ætheris Nit. \mathfrak{z} j given daily, and Potass. Nit. \mathfrak{z} j put in a pail of drinking water are all that is required. Except under very favourable conditions, the disease may assume a complicated form, the lungs being involved in the affection.

A few years ago, when this disease was so prevalent in London, I treated nearly two hundred cases, and the draught I found most successful was the following :—

Liq. Ammon. Acetatis Fort.	. . . . .	\mathfrak{z} ss.
Potass. Nitras	. . . . .	\mathfrak{z} ij.
Spt. Æther. Nit.	. . . . .	\mathfrak{z} vj.
Ammon. Carb.	. . . . .	\mathfrak{z} ss.
Aqua ad	. . . . .	\mathfrak{z} xx.
Ft. haust. bis die.		

The carbonate of ammonia should be added at the time of giving the draught, otherwise it loses its effect. When there is œdema of the legs, Ext. Belladon. gr. xx may be added with most beneficial results. As an experiment I gave the above draught to several dropsical cases, omitting the belladonna, but the result was not satisfactory. In another experiment I found that the addition of Liq. Strych. \mathfrak{z} ij to the above draught was of great benefit when the disease had been in progress four or five days.

In almost all the cases there was constipation of the bowels, which was relieved by Epsom salts. When the lungs became involved hot cloths to the sides, and sometimes mustard, gave great relief. In the after treatment I found Acid. Nitrohydrochlor. dil. \mathfrak{z} ijj, with Tinct. Nucis Vomicae \mathfrak{z} vj, for the first three or four days of convalescence, better than putting the patient immediately on the iron compounds.

Health and Holiday Resorts

SIDMOUTH

SIDMOUTH is on the south coast of Devonshire, about ten miles N.E. of Exmouth, and twenty-four miles S.S.W. of Taunton.

The aspect towards the sea is due south, and it is protected from the land side by a half-circle of hills about 500 feet in height. It is supposed that the situation of the hills, acting as conductors to the clouds in carrying them off from the town, is accountable for the small rainfall which takes place at Sidmouth, as compared with the immediate neighbourhood and the average for Devonshire.

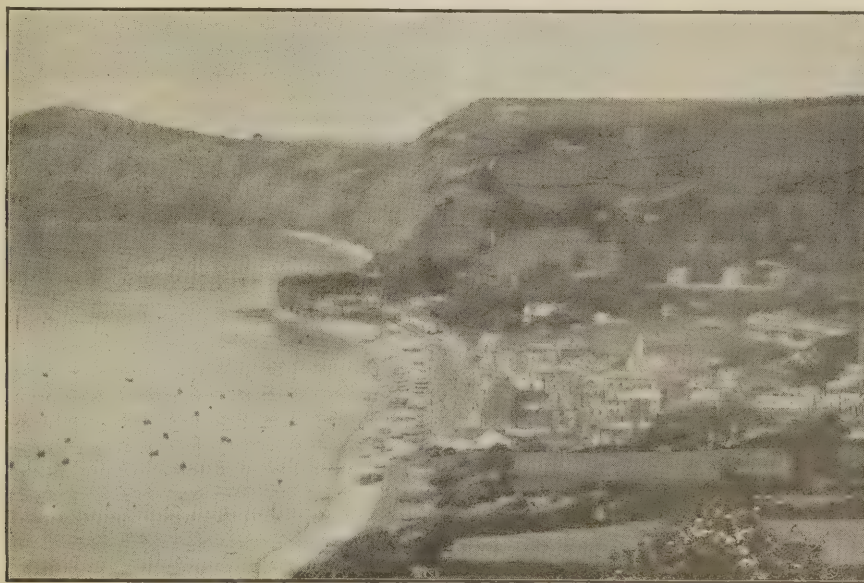
The remarkable warmth of the place is also attributed to these hills, which, in conjunction with the sea, reflect the rays of the sun upon the town.

In a brightly written 'Guide to Sidmouth,' by Dr. Leonard Williams and Mr. Neil Macvean, M.A., it is stated that the climate is remarkably equable, a fact that may be gauged in a very striking manner almost any day in winter when there is snow about, by mounting the hill which divides Sidmouth from Honiton. Under such circumstances the valley of the latter will almost certainly be found quite white, whilst that of the former will remain green. 'The proximity of the town to the sea, and its exposure to the same on its southern aspect, have, of course, the double effect of increasing the temperature during the winter months and of decreasing it during the summer. The sea

places as San Remo or Hyères, but that it is one of the nearest resemblances of any town in England to the more favoured health resorts on the Mediterranean.

The meteorological reports show Sidmouth to be a few degrees warmer in winter and somewhat cooler in summer than any other place in England. The humidity is considerable. The records during the last four years show that here the amount of sunshine during the winter has exceeded the average for the south coast in each year, and very materially exceeded it in 1891 and 1893.

As a health resort.—The class of cases for which



SIDMOUTH, FROM THE EAST CLIFF

W. Bray, Photographer, Sidmouth

likewise affects the atmosphere of the place, reducing the carbonic acid to vanishing point, and increasing proportionately the ozone, iodine, and bromine. The conformation of the district is probably responsible for the fact that even on the brightest day in summer there is always a breeze from the sea. As the surrounding hills become warmed, the air is attracted from the sea. This accounts partly for the comparatively low summer temperature and the freshness of the atmosphere which characterise the place.'

The subsoil is gravel. The hills on either side consist of red marl, those on the west being surmounted by the green sand.

Climate.—Although it has been termed the English Riviera, those who advocate the claims of Sidmouth do not pretend that it is in any way equal to such

Sidmouth is beneficial are especially chest affections, particularly asthma, bronchitis, and phthisis. The forms of asthma to which the climate is most beneficial are those which are termed the mixed catarrhal forms, especially bronchitic asthma.

It is also recommended for convalescents of all kinds who require the advantages of a warm climate and the tonic effects of sea air, because, although there is much humidity, it is not considered so depressing as many other humid places.

With regard to this subject of humidity, it is necessary to state that in Sidmouth the large amount of sunshine is said to dissipate the moisture very rapidly. We point this out because this part of the country has a reputation for being a relaxing climate, whereas it seems that such is not the case at Sidmouth.

Water supply.—Excellent water is obtained from the green sand which exists at a height of 350 to 400 feet above the sea level, above an impervious red marl, below which is Trias, or New Red Sandstone, on the western side of the valley in which Sidmouth is situated.

The supply is very good, being pure and soft, and the slight turbidity which used to be complained of has been entirely removed by the use of a new water-supply from the rock-marl and its mixture with the old supply.

Amusements.—There is good provision for golf, cricket, tennis, archery, croquet, and other sports. Fox-hunting is to be obtained in the immediate neighbourhood. The town is provided with two bands, and there are a club-house, concert-hall, and theatre.

Baths.—Public baths are now being erected, including brine and other baths for treatment of diseases as carried out at Bath, Buxton, Harrogate, and other English and Continental Spas.



SIDMOUTH, FROM THE SANDS, LOOKING EASTWARD

Train service.—The train service between London and Sidmouth has been much improved of late. Express trains, doing the journey each way in $4\frac{1}{4}$ hours, run daily, and a special express leaves Sidmouth on Mondays at 7.35 A.M., reaching Waterloo at noon.

Hotels.—There are three first-class hotels: 'The Knowle,' 'The Bedford,' and 'The York,' at all of which the terms are said to be moderate.

Drainage.—The drainage of the town was remodelled some years since. The new sewer was at first ventilated by manholes at the road level, and consequently unpleasant smells used to be emitted. This has now been completely remedied by the channelling of the manholes, and by the substitution, in many cases, of shaft ventilators for those at the road level, and there are several flushing tanks.

The 'Nurses' Column

THE SKILLED NURSE

By HONNOR MORTEN

Author of 'How to become a Nurse' &c.

The district nurse.—The deterioration of the district nurse is going on apace, and only the protest of the medical profession can arrest it. In country parishes there is a cry for nurses, but also a cry for cheapness; and the 80*l.* a year necessary to maintain a fully qualified nurse is thought too much. Therefore it comes about that ill-educated country girls—generally chosen because they are orphans, or not strong, or not clever—are sent for six weeks to some lying-in hospital, and are then set up in their native villages as district nurses, and supported by the clergy and the county.

I hope they will not have the support of medical men. Let the parish doctor, at least, protest, and point out that the only person who can rightly claim the title of 'nurse' is a woman of education who has spent at least one year, and preferably three years, in the ward of a large hospital where there is a recognised Nurses' Training School.

Asylum nurses.—Why should not attendants in asylums be trained as nurses in hospitals are? The means are simple; lectures and classes might be given by the medical staff, and ward instruction by the matron, who should herself be a hospital-trained nurse. The course should last for three years, and those who pass a satisfactory examination at the end of it should receive a certificate. The Medico-Psychological Association has done good work in starting examinations and certificates for attendants, but the subject wants extending—wants wider publicity. The medical superintendent cannot make good attendants out of bad material, and until general interest is aroused the young ladies who overcrowd the hospitals will scorn the asylums. Yet nowhere are education, refinement, tact, and skill more necessary than in the nursing of cases of mental disorder; no wider or better scope for women's every power could possibly be found than in dealing with mental cases, whether in private work or in asylums.

The certification of midwives.—The Council of the Midwives' Institute has passed a resolution to the effect that it is of the utmost importance that in any certificate issued to midwives the simple word 'midwife' should be retained.

The action of the General Medical Council with regard to the diplomas issued by the London Obstetrical Society and other bodies has caused great disquietude in lying-in hospitals, and while quite agreeing that smaller certificates would be more suitable, yet I think we should prevent any confusion between the work of the midwife, competent to attend natural labour, and the monthly nurse.

For twenty years the Obstetrical Society has done good work in raising the status and improving the training of midwives, and I think it would be detrimental to further progress, and even retrograde in its action, if any great check were to be placed upon their efforts.

Certainly the word 'diploma' might be changed to 'certificate,' and the size of the certificate should be smaller, and the seal might be left out; but it would be unfortunate if the Society were to cease to examine midwives and give them some document to show their efficiency. There will always be midwives, and therefore it is better they should be trained than untrained; and if any title such as 'obstetrical nurse' were substituted for the one now in use, the result would be confusion, and monthly nurses might consider themselves equal to attending natural labours. So I hope we shall retain the good old English word 'midwife.'

Reviews

In reviewing works it is proposed to give, as far as practicable, examples of the author's writing, which may not only show the character of the work, but which may prove of some clinical use to the reader.

Tumours, Innocent and Malignant: their Clinical Characters and Appropriate Treatment. By J. BLAND SUTTON, F.R.C.S., Assistant-Surgeon to the Middlesex Hospital. (Cassell & Co., 1894. 8vo, with 250 Engravings and 9 Plates, 21s.)

Surgical Diseases of the Ovaries and Fallopian Tubes. By the same author. (With 119 Engravings and 5 Coloured Plates. 12s. 6d.)

MR. BLAND SUTTON is so well known, not only as a scientific observer but also as a reliable and original worker, that any book which is published in his name will always be accepted with confidence; so that it is hardly necessary to give an extended review of the above works. They are both well written, logical, thorough, full of interest, and well illustrated.

TUMOURS, INNOCENT AND MALIGNANT

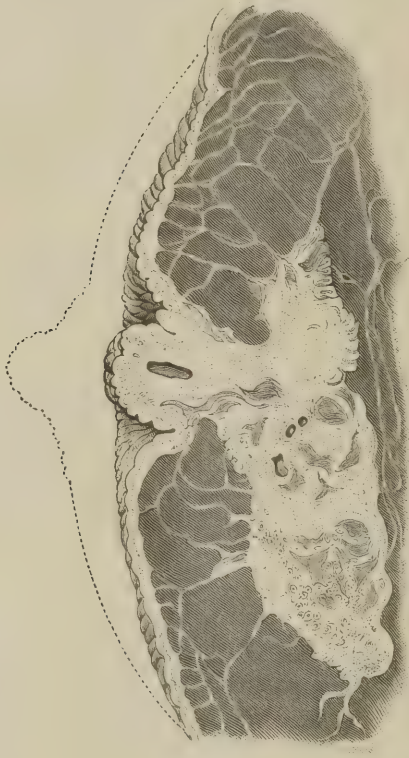
Mr. Sutton has been collecting materials for this work since 1885, and the results of his investigation into the matter of cysts were embodied in his Hunterian and Erasmus Wilson Lectures, delivered at the Royal College of Surgeons during the years 1886-9 and 1890-91.

In his description of cancer he has departed from the beaten track. The terms scirrhus, colloid, medullary or encephaloid, have, he considers, dominated the minds of surgeons and hindered progress long enough. The term 'cancer' is employed in a sense equivalent to malignant adenoma, the species being determined by the gland in which the cancer arises. The illustration which we give below is a good example of the many excellent figures which adorn this book. It shows remarkably well the appearance of a retracted nipple.

Carcinomata.—It is stated (p. 222) that there are two varieties of mammary cancer—namely, *acinous* cancer and *duct* cancer.

(1) '*Acinous carcinoma.*—This variety presents much histological diversity, which has led to great confusion in surgical writings. In the most typical form it occurs as a solitary hard tumour (so hard as to obtain the name of scirrhus cancer), situated at the base of the nipple; but it may occur at any part of the gland, even at its periphery.

When the tumour is near the areola, it will often induce retraction of the nipple; when situated in other parts of the breast, it will lead to dimpling and puckering of the overlying skin. . . . The tumour has no capsule, and fades away indefinitely into the surrounding tissues. When the parts beyond the tumour are examined, isolated collections of cells will often be detected.



CANCER OF BREAST

The dotted line indicates the extent to which the nipple and areola have retracted.

(Sutton on Tumours, fig. 197.)

‘In other cases the tumour will be only moderately firm, and on section exhibit a succulent appearance. When microscopically examined it presents alveolar spaces lined with epithelium, here and there raised into irregularly shaped heaps. Such cases are difficult to distinguish from adenomata; but when the sections are attentively examined, parts will be found in which the alveoli are completely filled with irregularly shaped epithelial cells.

‘In many examples of mammary cancer the tumour, when bisected, appears to the naked eye merely like a tract of cicatricial tissue, and feels as hard as cartilage; when examined microscopically, it will be found to consist of strands of fibrous tissue enclosing here and there a few epithelial cells. This variety is sometimes spoken of as ‘withering’ or contracting scirrhus; it runs a much slower course than the preceding kinds, and gradually, by its contraction, causes the gland to shrivel, so that at length the patient

presents an appearance as if the breast had been removed. Some of these cases have been known to last ten and even fifteen years.’

SURGICAL DISEASES OF THE OVARIES AND FALLOPIAN TUBES

This book is largely based upon personal investigation; but, at the same time, full justice is done to the original work of other surgeons. As in the work on tumours, comparative pathology has been brought to bear in elucidating the nature of the subjects dealt with, and especially as regards hydrocele, and in relation with menstruation and tubal pregnancy.

In respect to the pathology of extra-uterine pregnancy, Mr. Sutton states in his preface his belief that ‘the time is not far distant when even teachers of midwifery will wonder how they could ever have believed that an impregnated ovum would grow upon the peritoneum.’

On page 31, upon the subject of tubo-uterine gestation, the author refers to this condition as differing in its course from the purely tubal form. He goes on to state that ‘the occurrence of tubo-uterine gestation admits of no doubt whatever, and fortunately a few specimens exist of this accident which demonstrate its absolute independence of cornual pregnancy. Two specimens, one preserved in the museum of Guy’s Hospital, and the other, which has had the advantage of careful investigation by Doran, in the museum of the Royal College of Surgeons, are the most satisfactory and easily accessible examples in London.’

The specimen from Guy’s Hospital is described in the Reports of the Hospital by Dr. Braxton Hicks.

The dissection is thus recorded: ‘Uterus enlarged to six inches long, and three and a half to four inches in diameter in its widest part. A ragged rupture appeared on the fundus, rather towards the left side, from which blood had poured. The uterine walls had increased in thickness to about an inch and one-eighth at the widest part.

‘A cavity about three inches in diameter (when collapsed) was situated in the substance of the wall of the fundus, adjoining the left Fallopian tube. This cavity had extended the walls externally so as to be apparent there, and had also encroached on the cavity of the uterus, on the left side of the fundus. The walls of the cavity all round were formed of uterine tissue. The wall separating it from the uterine cavity was about one-sixth of an inch in thickness. An examination of the specimen shows that the cavity of the gestation sac is directly continuous with the tube. The walls of the sac bulge into the uterine cavity, which is lined by thick decidua.’

This abstract will give an idea of the style of the book, a work which is indispensable to anyone wishing to acquaint himself with the most modern views upon diseases of the ovaries and Fallopian tubes.

INDEX OF MEDICINE

Index of Medicine: a Manual for the use of Senior Students and Others. By SEYMOUR TAYLOR, M.D., M.R.C.P., Senior Assistant-Physician to the West London Hospital. (London: Smith, Elder, & Co., 1894. Crown 8vo, pp. 794, 12s. 6d.)

This work purports to be a handy manual for students preparing for their final examination in medicine at the various Examining Boards; and is not to be considered as a text-book, but as a supplement to the larger treatises on medicine in general use.

The book will nevertheless, unless we are much mistaken, prove of considerable value, not only within the restricted sphere for which Dr. S. Taylor modestly assigns its rôle, but also to practitioners, especially those for whom conciseness and reliability are matters of moment.

There is the usual subdivision of each subject under various side-headings, such as 'definition,' 'causation,' 'pathology,' 'symptoms and physical signs,' 'complications,' 'diagnosis,' 'prognosis,' and 'treatment,' which renders it possible to discover easily information that may be required, if such be contained within its scope. A full index also assists in the same direction.

Let us take, however, one branch of the book for closer examination, and select—as we did by accident—that on diseases of the respiratory system, which occupies eighty-four pages. The author describes, first, the medical anatomy of the trachea, thorax, bronchi, lungs, and mediastina; then follows a subdivision on physical examination of the lungs by inspection, palpation, percussion, auscultation, and mensuration, together with a table of physical signs and their association with different morbid states. Next succeed chapters on diseases of the larynx and trachea, the bronchi, the lungs, and the pleura.

The treatment recommended appears to be that which has the sanction of the best British medical authorities of the day, and it is described in fairly full detail. There is a commendable absence of padding; the language employed is concise and definite; and the proof sheets have evidently been well and carefully revised. Altogether, Dr. S. Taylor may be congratulated on the production of an excellent work, well suited to its avowed purpose.

THEORY AND PRACTICE OF MEDICINE

Theory and Practice of Medicine. By FREDERICK T. ROBERTS, M.D., B.Sc., F.R.C.P. 9th Edition. (H. K. Lewis, 1894. Royal 8vo, pp. 1184, 21s.)

This work is so well known that it is almost sufficient to say of the ninth edition that it retains the position that it has always held. The contents have been carefully revised,

and many parts rewritten; and the general arrangement has been somewhat modified. Bacteriology has received special consideration, and new sections have been written dealing with the general therapeutics of the principal systems and organs of the body.

The treatment of diphtheria by antitoxin serum had not attained to notoriety when this edition was written, and so there is no mention of it; but the description of the Klebs-Löffler bacillus is, perhaps, sufficient for the purpose of the work.

As an example of the cautious statements made, which are so desirable in a standard work of this kind, we may mention the following. In dealing with myxœdema, the author, in referring to the internal administration of preparations of the thyroid gland, mentions the very satisfactory results which have been met with, 'but, as yet,' he adds, 'no definite statements can be made as to the permanence or otherwise of the beneficial effects so obtained.' He refers to this therapeutic agent as being a powerful one, and to the unpleasant effects which sometimes follow its use, such as palpitation, giddiness, pyrexia, depression, and dyspnoea.

The author is to be congratulated upon the general practical character of his work; nothing being more difficult than to do justice to the many subjects to be dealt with in the compass of such a handbook.

We have no wish to cavil with small omissions, which are inevitable, but the following seems to us to need correction in the next edition. In dealing with Spasmodic Torticollis, the affection is described very well; but, in the present state of our knowledge of the result of surgical treatment, we cannot consider the statement satisfactory that 'this affection is generally incurable after it has become well marked.' No mention whatever is made of operation upon the spinal accessory or posterior cervical nerves, although in other parts of the work the author has not omitted to refer to surgical help in the treatment of disease.

The volume is well got up, is not too bulky for frequent use, and fulfils excellently the purpose of a practical handbook of medicine.

THE ARTIFICIAL FEEDING OF INFANTS

The Artificial Feeding of Infants: the Properties of Artificial Foods, and the Diseases which arise from Faults of Diet in Early Life. By W. B. CHEADLE, M.A., M.D., Physician to St. Mary's Hospital. 3rd Edit. revised and enlarged. (Smith, Elder, & Co. 5s.)

The third edition contains further material upon this important subject; and these additions are chiefly in connection with the quality of cow's milk and its preparations; the effect of various diluents upon it; the giving of peptonised and pancreatised foods; and the influence of

their prolonged use on the development of the scorbutic state.

If space permitted we should like to give long extracts from this excellent little book, as they are essentially of that practical character which we wish to attain in the columns of this Journal. There are few physicians who have given so much attention to this subject as Dr. Cheadle, and the able help which he has received from Dr. Luff is fully recognised by him. Mr. Arthur Savory and Mr. Elkin have also helped in the construction of this volume.

The title of the work expresses fully what the contents are, and every practitioner ought to feel indebted to Dr. Cheadle for having supplied them with such an excellent reference book upon this subject of infants' diet.

The sterilisation of milk is a matter which is recognised in the present day as one of great importance.

Dr. Cheadle writes definitely and plainly. He lays down as a rule that in all cases where the milk supply is not private, and its conditions not fully known, all milk for use in the nursery should be boiled immediately upon its arrival in the house.

The various forms of apparatus which have been devised by Soxhlet and others, either by immersion in boiling water, or by exposure to steam, and its preservation in hermetically sealed vessels, are referred to; but objections are raised to these methods, and it is stated that boiling for a few minutes is necessary and is sufficient for ordinary purposes. The objections to boiled milk are not serious. If a child is fed upon it from the first, he will take to it kindly, and should it cause constipation this can be easily counteracted by the addition of a small quantity of fluid magnesia or carbonate of magnesia to each bottle, and, later, by the addition of some food which is laxative, as a malted food, for example. By this means we prevent the contamination of the infant (through milk) by tuberculosis, typhoid, scarlatina, and diphtheria.

Boiled milk is certainly not so palatable as that which is only heated, and we conceive it quite possible that boiling interferes to some extent with its nutritive value: therefore it is satisfactory to know that disease germs may be destroyed without raising the temperature quite so high.

Dr. Sims Woodhead assures us from quite recent experiments that all that is necessary is to put an ordinary pitcher covered at the top with a saucer into a pan of hot water which should be above the level of the milk to be

sterilised. Allow the water to boil for half an hour, and at the end of that time the temperature of the milk should have been at from 90° to 92° C. (about 197° F.) for about ten or twelve minutes.

The temperature of the milk very seldom rises beyond this, so that it never actually boils.

'Such treatment kills all disease germs,' says Dr. Sims Woodhead, 'including necessarily those of typhoid, tubercle, and diphtheria; and if the milk is allowed to stand for several hours after, without being uncovered, it will have very little of the boiled-milk taste to which so many people object.'

Dr. Woodhead's full report upon these experiments will be published before long, and he has very kindly supplied us with this information in advance.

A SYRINGE FOR INJECTING ANTITOXIN SERUM, COMBINING A VALUABLE NEW INVENTION.

Messrs. Wright & Co., of New Bond Street, have just brought out a hypodermic syringe, to hold five drachms, for antitoxin serum and other purposes. It is made of glass and metal, nickel plated, and the various parts are easily detached from one another for sterilising purposes. A very valuable new invention is added to this syringe, its purpose being to regulate the size of the piston. We have most of us experienced the trouble which arises from the piston shrinking and failing to fit the syringe accurately. By means of a sliding cylinder over the piston rod, the circumference of the piston can be increased by pressure from above, or relaxed by removing that pressure, and so a perfect fit can be insured. The piston is packed with asbestos.

For proposed contents of the next issue, see p. xvii.

*For tables of Metric System, Thermometric Scales,
&c., see p. xix.*

CLINICAL SKETCHES

FEBRUARY 1895

Club Fees—a Fight for Justice



ONE of the most important subjects of general medical interest of the day is that of remuneration of the doctor from Clubs and similar institutions. The medical men of Cork are fighting hard in this matter, and they seem pretty well united in their action, and tolerably certain of success.

In recent times an idea has been growing that legislation ought to step in and remove evils which only affect a limited number of individuals, and in this way some have thought that the abuses incident to Club practice, as well as to Medical Aid Associations, ought to be dealt with more energetically by the General Medical Council or the State.

We are afraid that much interference from these authorities must not be looked for. We think that reform must come from medical men themselves, and that the action of the Cork doctors is an example of how that reform should be brought about.

The evils complained of are very real. It is more than enough that qualified medical men should give their services to the members of a Club who subscribe only 8s. per annum each, to include attendance on their families, and also medicine, when these individuals are very poor. When, however, such members are composed of, or include, the best class of working-men; when the wages received by them are those of the skilled artisan, then it is time for the very hard-working doctor to protest.

The difficulty met with is the fact that our profession is not free from those whom supposed necessities, or, we should perhaps say, whom shortsighted ideas regarding their own interests, induce to accept the posts given up by their brethren who are fighting for, not some vague principle, but merely justice.

Legislation will never, we think, interfere in such cases. It is for the members of our profession to act loyally to themselves.

Men who accept the appointments vacated by others who have been actuated by such clearly reasonable and just motives as in the case of Cork, are doing so in opposition to their own interests. They are acting legally, but, to say the least, unwisely. Their action is not that of befriending the poor, but of giving their

services for a mere pittance to people who can well afford, and have hitherto well afforded, to pay reasonable fees for medical attendance.

These members of our profession succeed by such means in getting temporary employment, but they will ultimately pay dearly for it, as they are opposing themselves to men who are often, as at Cork, thoroughly appreciated by the patients, and who are moreover struggling in the cause of honesty and justice.

The demands of the profession in Cork are so extremely moderate, that they are evidently fighting for a principle, since no respectable person, properly entitled to belong to a Society, could possibly object to the small payment, proportional to their incomes, demanded for attendance on themselves, their wives, and their families.

The terms fixed by the doctors are as follows: 7s. 6d. per annum for men whose incomes are under 100*l.*, and 15*s.* for men whose incomes are under 200*l.* and over 100*l.* These terms, while not interfering with the artisan and labouring class—to whom the Club is a great boon—only apply to those who have in fact no right to derive benefit from such a system. The fact that bitter opposition has been excited by such an extremely moderate scale of charges is in itself a proof of the demoralisation which has already taken place, and the extent to which self-respect and independence are disappearing amongst a certain class of well-to-do members of the general public.

This evil, we regret to say, is not confined to Cork, for it has for some time been very evident throughout the United Kingdom, and has produced a large diminution of professional income for the benefit of those who are not entitled to such exceptional terms.

We cannot too strongly condemn the conduct of those members of our profession who, we believe, have taken a mistaken view of their own advantage in seizing this opportunity to supplant those of their brethren who are united in an effort to raise the status of the profession and, at the same time, to minister to the wants of the poorer classes.

The Doctor's Title

Considerable advance has been made towards the formation of a Teaching University in London. Lord Rosebery has practically undertaken, on behalf of the Government, to introduce a Bill into Parliament at no distant date to appoint a Statutory Commission to remodel the existing Institution upon the principles enunciated by the late Gresham Commission.

The University itself is also waking up to the fact that it can no longer oppose successfully the demands for a Teaching University where degrees may be obtained for practical purposes as well as for proving the high scientific capabilities of its graduates, and where practical tests will take the place of exhaustive examinations.

Medical students will then have the opportunity, when studying in London, to qualify as Doctors of Medicine without migrating to distant Universities.

At the same time, there exists a strong opinion that every qualified medical practitioner possesses the right to style himself Doctor, whether he holds a University degree or not, and there is something to be said for this view of the case.

The M.D. degree really signifies a teacher or professor as well as a practitioner of medicine, whereas, another meaning of the word Doctor is 'one duly licensed to practise medicine; a physician; one whose occupation is to treat diseases.' There would not be much harm done if the title were adopted by every medical man who was fully qualified to practise.

NOTES BY THE EDITOR

For the present 'Clinical Sketches' will be published on the 15th of each month.

As stated in the January issue, every number will contain a full-page plate of some medical celebrity, or of some other subject of medical interest, chiefly reproduced from old engravings and etchings. The best modern methods of reproduction have been adopted, and, by use of the best procurable paper and careful printing, I hope to produce satisfactory results.

The full-page portrait of Harvey in the January number and that of Cheselden in the present issue are, I think it will be conceded, very good, and we intend to do our best to keep those which follow up to this standard.

It has been suggested to me that these plates might be detached from the journal, and framed at a small expense, and this seems a very good idea. If in passing through the post these plates should suffer any damage, they should be at once detached from the journal, damped on the back, placed between two sheets of clean white blotting paper, and put under the pressure of some heavy books. The mezzotint of Cheselden, from which I have taken the plate for this number, is rare and considered a very good impression.

In Cheselden's book, 'Osteographia,' are nine charmingly designed initial letters, all containing some anatomical features. These I have had reproduced, and two of them are used in the present issue.

For the March number I am having prepared a copy of an engraving of Rembrandt's celebrated picture of Nicholas Tulp giving his anatomical demonstration. This picture is one of Rembrandt's masterpieces. It is now at the Hague, and should certainly not be missed by those who visit Holland. The engraving gives a remarkably good representation of it, being especially effective in its lights and shades, and in the portraits of the surgeons present.

The Antitoxin treatment of diphtheria, as given in the January number, still represents the progress of this new remedy, although, as might be expected, some attempts have been made to depreciate its good

effects. We await further developments before dealing with the subject again.

In describing Health and Holiday Resorts, I propose chiefly to select those which are not universally well known, and I shall be glad at all times to receive suggestions as to places worthy of notice from the readers of this journal.

Under the heading 'The Practitioner's Note Book' the intention is not merely to give abstracts from current medical literature, but also to record short cases and notes contributed by readers who are in general practice. There must be an immense amount of valuable experience lost to the medical world through a want of opportunity to record it. All of us must from personal observation and experience learn something that is peculiar and interesting and valuable, and yet we do not always publish it, either because it is not enough to form a 'paper,' or because we do not know exactly where to send it.

Moreover, a very short contribution sent to a medical journal may seem to the editor hardly of sufficient general interest to publish by itself; but when it is arranged with other contributions bearing upon the same points, collectively they may be of great value.

I intend in this journal to collect all such short notes that my readers may be good enough to send, to arrange them in sequence, and to publish them as opportunity may offer; and, by following out such a plan, I confidently believe that a great deal of valuable information may be saved from oblivion.

The view that those engaged in general practice are best able to throw light upon many obscure and difficult questions led Professor Humphrey, of Cambridge, many years ago, to suggest the scheme of Collective Investigation, and it was attempted to be carried out by the British Medical Association. This scheme failed, and its history was somewhat as follows.

Subjects were selected and questions formulated by scientific workers, and busy men throughout the country were asked to record their experience in answer to those set inquiries. Papers were distributed to fill up, to do which in a systematic manner entailed an immense labour upon men who could ill afford to

give up time from their routine work. The result was that the answers were given very incompletely, or were left to the least busy and therefore the least experienced members of the profession. It is not difficult to understand, under these circumstances, why the scheme ended in failure.

The plan I propose, although perhaps less systematic, will entail very much less trouble upon those who take part in it; while, at the same time, the results of collective information will be attained.

If any medical man who is in general practice will record his experience upon one or other subject of which he has special knowledge, we shall, in time, gain very valuable information regarding useful points in practice.

I would especially call the attention of my readers to the leading article in this issue. The attempts upon the part of Clubs, Provident Dispensaries, and Medical Aid Associations to cut down medical fees on the one hand, and to enrol among their number members who are not entitled to the lowest tariff of fees on the other, should be met by the doctors with determined resistance.

The medical staff of the Pendleton Provident Dispensary have severed their connection with that institution upon these and other grounds; and I am glad to read the very judiciously worded resolution passed by the medical practitioners of the district against the Manchester and Salford Provident Dispensary system.

It is stated that (1) the bulk of the members are well able to pay ordinary medical fees; (2) there is an absence of a wage limit, and the remuneration is not proportionate to the labour and responsibility attached to the work.

The Harveian Society held its annual Convezazione, on January 17th, and the retiring President, George Eastes, M.B., F.R.C.S., gave as his address 'Evolution in Treatment from 1831 to 1895.' The subject-matter was both instructive and interesting, the period dealt with representing the life of the Society. It has been published fully in the 'Lancet' of January 26th.

Original Papers

NOTES OF A CASE OF MYXŒDEMA TREATED BY THYROID EXTRACT

(COMPLETE RECOVERY)

The accompanying figures, taken from photographs, illustrate the progress of a case of myxœdema treated with thyroid, at first with the extract—which, however, was discontinued owing to irritation at the seat of puncture—and afterwards with thyroid tabloids, of which the patient continues to take one daily. There is nothing calling for special remark, but it is a good example of the clinical features of this disease, and the difference between the therapeutics of myxœdema eight years ago and at the present time.

UNDER THE CARE OF DAVID FERRIER, M.D., F.R.S.
Physician and Professor of Neuropathy, King's College Hospital.

ELIZA M., admitted into King's College Hospital, May 21, 1894, complaining of great weakness, shortness of breath, swelling and coldness of the hands and feet.

Family history.—The patient's mother was subject to epileptic fits, and her speech was thick.

Her mother's brother died insane and her mother's sister committed suicide. One brother and one sister died of phthisis.

Personal history.—Age 43. Married, 6 children, all strong, 2 miscarriages.

The patient has never been strong since her last confinement in October 1885. In 1886 she attended Dr. Ferrier as an out-patient for three months, and was admitted into the hospital on June 23, 1886.

Abstract of notes in June 1886.—The patient complained of great weakness and inability to use her hands properly. She was unable to cut bread, and frequently let fall the soap when washing.

She appeared a well-nourished woman with rather waxy skin—face puffy, lips thick, eyelids swollen. The eyelashes were almost absent. There was a circumscribed flush on the cheeks. The speech was thick. *Urine*=1010, no albumen.

The patient left the hospital on July 17, 1886. She states that she was in no way bettered by her treatment, which consisted of the usual tonic remedies.

Since that time she has been getting gradually weaker and has suffered much from pain in the back. She has frequently fallen down owing to 'want of feeling in her feet.' Recently she has grown very deaf, her vision is considerably impaired, and her

memory has become very uncertain. Her articulation has been getting slower and thicker. She has had twitching of the hands and feet.

She states that she occasionally suffers from hysterical fits during which she is faint and incapable of doing anything, but is conscious of what is going on around.

General condition at this date (May 1894).—The patient is apparently well nourished but somewhat anæmic.

Tongue clean, bowels constipated.

Pulse feeble, regular, not easily compressible.

Heart sounds normal.

Lung sounds normal.

Urine 1015, acid, slight amount of albumen.

Weight 10 st. 10 lbs.

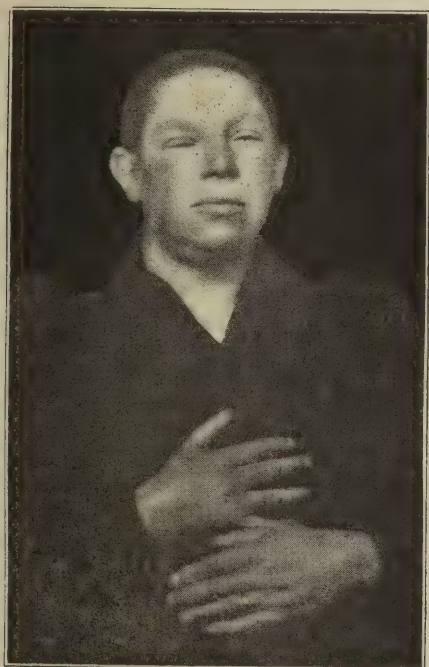


FIG. 1.—APPEARANCE OF PATIENT MAY 21, 1894, BEFORE COMMENCEMENT OF THYROID TREATMENT.

The face is puffy, the skin waxy and cold, with a bright flush on the cheeks. The lips are swollen. The eyelashes and eyebrows are almost gone, and the hair on the head is scanty. The patient is slow in her speech and clips her words.

The skin generally is rough and in places slightly scaly.

The hands and arms are puffy and of a livid colour.

The legs are swollen, the skin dry, puffy, and cold. The knee-jerks are well marked, the plantar reflexes slight.

She is disinclined to walk and is slow in her movements.

Eyes: no nystagmus. Sight fairly good. She can read the clock at the end of the ward. The reflexes in both are normal. The right pupil is slightly larger than the left.

Hearing: a watch is heard 2 to 2½ inches from the ears and on the top of the head.

Taste: normal.

Smell: almost absent.

Sensations of touch, pain, heat, and cold, are normal everywhere.

The patient suffers from hæmorrhoids, from which she loses a good deal of blood.

May 31.—The average quantity of urea estimated for four consecutive days was 493 grains.

June 10.—Blood, hæmoglobin 66%. Red corpuscles normal. 400 red to 1 white.

July 2. Hæmoglobin 55%. Corpuscles 78%.

May 31.—The patient had 15 m. of glycerine extract of thyroid injected into right forearm.

June 1.—No headache or sickness, but does not feel quite well (*Ol. ricini*).

The arm is very red and tender round the site of the injection.

Weight 10 st. 12 lb.

June 3.—Tenderness and redness diminishing.



FIG. 2.—APPEARANCE OF PATIENT JUNE 4, 1894, FIFTEENTH DAY OF THYROID TREATMENT.

June 4.—Patient feels slightly better. Eyes seem somewhat more open.

June 5.—One thyroid tablet to be taken night and morning.

June 6.—Complains of drowsiness and headache, pains across the eyes, feels weaker, no sickness, but appetite poor. Feels a dull sensation all over the body. To have 3 tabloids daily in future.

June 9.—Frontal headache. Weight 10 st. 9 lbs.

June 10.—Feels weaker. Hands perspiring. The hands and eyes are less puffy. The skin on the back of the hands is very rough and peels off. The palms are moist.

June 14.—The eyes are brighter and the face thinner. The flush on the cheeks is less marked. The hands perspire more freely. Weight 10 st. 2 lb.

June 16.—Feels faint and weak when up. The skin is softer and more moist.

June 18.—The ring on the third finger of the left hand, which when she came in could not be turned round, now moves quite loosely.



FIG. 3.—APPEARANCE OF PATIENT JUNE 28, 1894,
THIRTY-FIRST DAY OF THYROID TREATMENT.

The patient does not consider that her eyesight or hearing has improved.

June 21.—Puffiness of the face is less and the flush not so marked. The skin is less rough.

The patient is losing a great deal of blood from the hæmorrhoids.

June 23.—Weight 9 st. 9 lb.

June 25.—The flush has now almost gone, and the

face presents a healthy vascularity. The patient can walk much better.

June 28.—Operation for hæmorrhoids.

July 8.—Discharged. Weight 9 stone.

October 11.—Came up to the hospital looking bright and active. Can walk three to four miles easily and feels quite well. She takes one thyroid tablet every day.

Weight 9 st. 10 lbs.

December 17.—Again paid a visit to the hospital. Health good, and improved appearance maintained.

A CASE OF CARCINOMA OF THE CARDIAC ORIFICE OF THE OESOPHAGUS

By J. BLAND SUTTON, F.R.C.S.

Assistant-Surgeon, Middlesex Hospital.

The subject of this communication, a barrister 49 years of age, was a charming and benevolent man, who devoted much of his leisure to physical science and deeply interested himself in popularising its wonders. He possessed an ample amount of this world's goods and sufficient discrimination to exhibit his benevolence in worthy channels in an unostentatious manner.

In the early part of 1894 he was to outward appearance in robust health; in the month of May, whilst dining at a banquet, he was seized, after taking a lozenge, with hiccup which subsequently became troublesome and persisted several days; this led him to seek advice of Dr. Edwin Hollings, who had been his medical adviser ten years. The attack of hiccup was followed by occasional vomiting, and coincidentally the patient began obviously to diminish in weight, and the existence of some serious organic disease was suspected.

From this date onward the patient became his own clinical clerk, and not only recorded the facts of his illness with great precision, but began to study the literature of 'diseases of the stomach' with an amount of zeal certainly phenomenal among clinical clerks in general. From these records the following facts were obtained:—

The patient weighed himself daily (at the same hour, on the same machine, and in the same clothes) with the result that for many weeks the daily loss varied from four to eight ounces. In July the symptoms were very definite, the chief being vomiting,

progressive loss of weight, and occasional melæna. The vomit always consisted of recently ingested food free from bile, blood, or sarcinæ, and void of any traces of fermentation. On physical examination of the belly the stomach was of normal dimensions, manipulation caused no pain, and no tumour could be made out; these signs remained unaltered throughout the patient's illness. Up to the end of August the patient had been seen in consultation by many able physicians, and many of them suspected the trouble to depend on cancer of the stomach, but no one could suggest the precise situation. These consultations were very remarkable, inasmuch as they assumed the character of severe cross-examinations.

In September, a pouched or distended œsophagus was suspected, and the patient readily submitted to examination by œsophageal bougies, which appeared to enter the stomach readily and seemed to negative the notion that the trouble was in the œsophagus, and rather indicated marked contraction of the stomach. An attempt was made to estimate its capacity, and to make the patient comfortable by daily washing out this viscus, but, as the sequel shows, none of the tubes ever entered the gastric cavity.

At the beginning of October the emaciation was very marked, the other physical signs remained unchanged; during September the total loss of weight was 12 lbs. Throughout October and November the average daily loss was 12 oz. During these months he was seen by physicians and surgeons in quick succession, and though many guesses were made as to the nature of the illness the prevailing opinion was cancer of the stomach.

The emaciation was now accompanied by increasing anxiety on the part of the patient, he read special works more fervently, and in at least one instance knew the facts of a volume more accurately than its author, and was greatly astonished to find the physician describing points at variance and in direct opposition to his opinions expressed in the book. As there was so much doubt as to the seat of the lesion, the patient at one period seriously considered the advisability of having it determined by abdominal section, but some of his advisers dissuaded him from this heroic resolution.

At the beginning of December attempts were made to feed him by a soft tube, but without success. The emaciation was at this time extreme and accompanied by great exhaustion. The patient now thoroughly realised the impotence of medicine in his case and made dispositions for the end. Among other things

he wished that the author of this record should conduct a *post-mortem* examination, his deep regret being 'his inability to participate in the discovery of the cause of his death.' By December 14 the patient had grown so weak that towards evening he felt

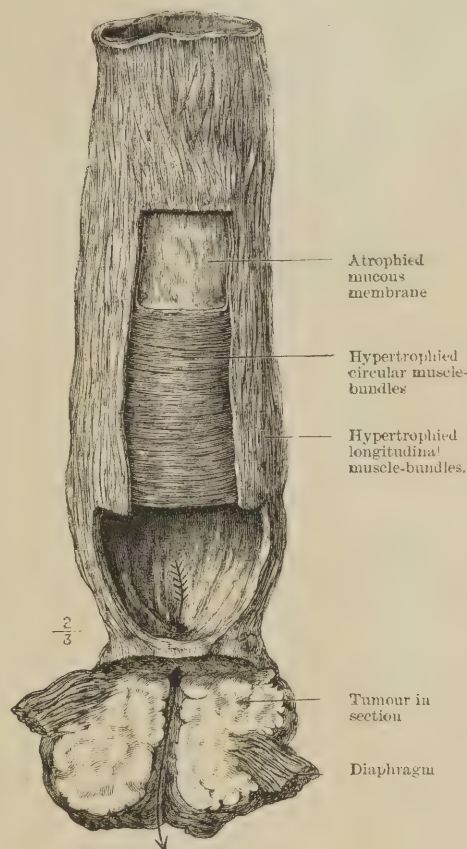


FIG. 1.

weary, and whilst being lifted from the couch to the bed fainted and quietly died.

Next day I examined the body in the presence of Dr. Edwin Hollings and Dr. Percival White. The stomach was of natural size, but its coats were thin from atrophy. The œsophagus was greatly dilated, and, as shown in the figure, its muscle coat was much hypertrophied and its mucous membrane reduced to the thinness of very fine tissue-paper. At the point where the œsophagus is gripped by the diaphragm the walls were involved in a hard white tumour, in shape like a cotton bobbin, the central canal being reduced to a diameter of 5 mm. In the recent state a No. 3 silver catheter passed with ease through this canal; nevertheless when the œsophagus was filled with water none of it escaped into the stomach even under pressure.

The lymph glands in the posterior mediastinum were enlarged and hard, but the lumbar set and those at the root of the neck were not enlarged.

Microscopically the tumour was found to be carcinoma, the epithelial portions resembling the glands normally found in the lower third of the gullet.

The difficulties in diagnosis were mainly due to the situation of the tumour. Epithelioma of the upper part of the œsophagus and at the spot where the left bronchus crosses it is unfortunately very common. Cancer of the œsophagus is very rare, and it is somewhat strange that I should have frequented the *post-mortem* room for a period of sixteen years and this should be the first case of cancer at the cardiac orifice of the gullet that has come under my notice.

ON THE CHOICE OF AN ANÆSTHETIC

By HENRY DAVIS

Anæsthetist to St. Mary's Hospital.

It is a very extraordinary fact that, in spite of abundant evidence showing that chloroform is far more dangerous than ether as an anæsthetic, many practitioners employ chloroform as the routine agent for inducing unconsciousness.

It is undeniable that the public is well aware of the greater risks of chloroform anæsthesia as compared with ether; and it is a fact that patients when advised to submit to operation are often far more deterred by fear of chloroform than by fear of the surgeon's knife.

A few years ago the profession in England had almost realised the greater comparative safety of ether as a routine anæsthetic, but the startling results of the Hyderabad Commissions have so altered professional opinion that there has been a decided reaction in favour of chloroform.

Up to the date of the appointment of the first Hyderabad Commission, the opinion was almost unanimously held that chloroform caused death by paralysing the heart. This view was founded upon many very careful clinical observations made upon the human subject. The Hyderabad Commissions found, from experiments conducted on pariah dogs and monkeys, that chloroform killed always by arrest of

breathing before paralysing the heart. The outcome of this opinion became practically this:—As chloroform kills by arrest of respiration, the great object of the administrator is to watch the breathing carefully during its exhibition, and to pay no heed to the pulse. We must be careful not to interpret this as signifying because chloroform when too freely inhaled stops the respiration instead of the heart (as was formerly believed) it is a safer anæsthetic than ether; on the contrary, its character as an unsafe routine anæsthetic remains as certain as ever.

This is surely amply proved by the fact that the annual bill of mortality has not decreased since the Hyderabad Commissions issued their reports.

During the past year 1894 no fewer than thirty-eight deaths from chloroform have occurred in England alone, and an examination of the clinical records of these unfortunate cases shows that in nearly every instance the victims were vigorous individuals, men mostly, in the prime of life.

This serious condition of things will, I fear, continue so long as practitioners continue to employ the *simplest rather than the safest* anæsthetic, and especially if they use complicated inhalers. These grave risks are to be deplored, especially when so many facilities are offered at the large general hospitals of the metropolis for learning the best methods of exhibiting ether.

Of course no one can blindly employ one anæsthetic to the exclusion of the other, but as a general rule the choice of an anæsthetic rarely presents difficulties.

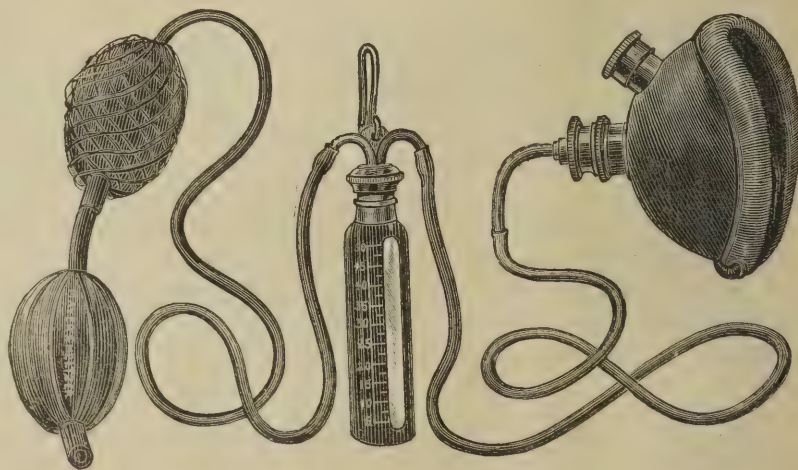


FIG. 1.—JUNKER'S INHALER.

As a general practice I administer ether to adults, reserving chloroform for children and elderly persons.

The cases where I should not give ether are those with atheromatous arteries, those suffering from bronchitis and emphysema, asthma, and from advanced kidney disease, and empyema and phthisis; also in operations about the mouth where the ether apparatus would be in the way of the surgeon, and when the cautery is to be used. In these latter cases it is best to give chloroform by means of a Junker's inhaler fitted with a tube for the mouth or nose or tracheal opening.

As the blood pressure is raised under ether, thus causing congestion and turgescence of the blood-vessels, it is apparent that it would be best to give chloroform where such congestion would be bad for the surgeon, as in such an operation as ligature of the arteries at the root of the neck.

In giving ether I generally use an 'Ormsby' inhaler, because the air-way through the sponge to

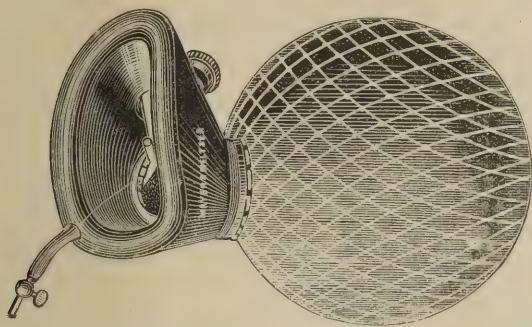


FIG. 2.—ORMSBY'S INHALER.

the bag is larger than that in Clover's apparatus; it is also lighter and more portable.

Clover's gas and ether apparatus, however, is very useful for short operations, as, for instance, the

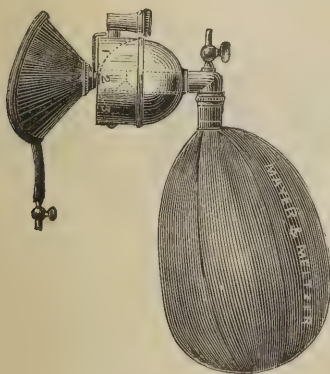
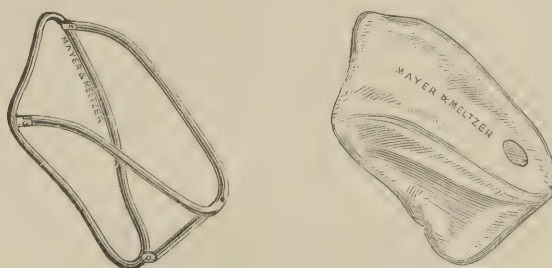


FIG. 3.—CLOVER'S INHALER.

extraction of teeth, when the slight effects of ether after the administration of the gas are required.

For chloroform I use a simple wire frame covered over with flannel, a modification of Skinner's inhaler.

It should be borne in mind that some individuals cause anxiety under any kind of anæsthetic. Among these I may mention morphia habitués, whose respiration, when they are under chloroform, will often slow down and get more and more shallow. Also with



FIGS. 4 & 5.—CHLOROFORM INHALER.

alcoholic subjects it is very difficult to get them over the excitable stage; in fact, very often extreme care is required in this stage, for, the right heart being dilated and engorged with the patient's struggles and stoppage of respiration, should air not be given at the right moment you may get fatal syncope.

When an anæsthetic is required soon after the patient has taken food, this also causes grave anxiety, the fear being, of course, that during vomiting some of the undigested food may get into the wind-pipe.

This leads me to consider the *preparation* of the patient. It may be taken as a golden rule: that the more carefully a patient is prepared for anæsthesia the less risk he runs, and, in fact, if properly prepared he rarely causes anxiety to the anæsthetist. The rules I enforce as far as possible are the following:—

No solid food whatever must be given for four hours previous to the operation; the last meal being one of beef-tea, jelly, or milk.

The bowels must be well cleared the day before.

All clothing must be completely loosened.

Artificial teeth and plates must be removed.

If these simple rules be followed, the risks to life will be greatly minimised under any anæsthetic.

In concluding this brief notice I would urge that if ether rather than chloroform be used as a routine agent, especially in minor surgery, many calamitous results will be avoided.

DISLOCATION OF THE FEMUR INTO THE SCIATIC FORAMEN

By JORDAN LLOYD, F.R.C.S., M.B.

Senior Surgeon to the Children's Hospital, Birmingham

The accompanying illustration is prepared from a photograph taken by myself of a little patient admitted into the wards of the Queen's Hospital. It is rarely one has the opportunity of photographing typical injuries, and few portraits of dislocated hips have probably been taken.

The little patient was a healthy intelligent boy eight years old. The exact cause of the injury could not be learned, but it appeared that the boy was in bed with a big brother, who was lying between his



thighs so as to stretch his limbs widely apart. The patient felt something suddenly give way in the left hip, and experienced acute pain in that part. He was brought to the hospital almost immediately. The symptoms which were present need no description; the illustration speaks for itself.

The flexion, adduction, and rotation inwards of the femur; the bent knee and the rigidity, were quite classical. The pelvis was tilted towards the affected limb, and the great toe lay at the inner side of the ball of the great toe of the opposite foot, rather than on the top of it, as generally described. Under chloroform the deformity was easily reduced by manipulation. Knee flexed on thigh; thigh on abdomen; sharp wide rotation of the knee outwards, with sudden extension of the whole limb.

SEVERE INJURY TO AN EYE WITHOUT MUCH PERMANENT DAMAGE TO SIGHT

By HENRY JULER, F.R.C.S.

Ophthalmic Surgeon and Lecturer on Ophthalmology to St. Mary's Hospital; Surgeon to Royal Westminster Ophthalmic Hospital

G. W. attended St. Mary's Hospital in June 1891 shortly after sustaining a severe injury to his left eye from the bursting of a soda-water bottle.

The injury consisted in a linear wound extending obliquely upwards and inwards across the whole diameter of the cornea and into the sclera, 3.5 mm. beyond the sclero-corneal junction (see fig. 1). There was prolapse of iris at the upper angle of the wound. The tension of the globe was considerably reduced.



FIG. 1.

He was admitted into the hospital and an iridectomy under cocaine performed at the site of the prolapse. Atropine drops were instilled into the palpebral aperture twice a day. The wound healed readily, though an extensive anterior synechia persisted at the lower and outer part of the wound, and a slight adhesion in the region of the iridectomy. The normal tension was soon restored, and at the end of four days he was made an out-patient. The shape

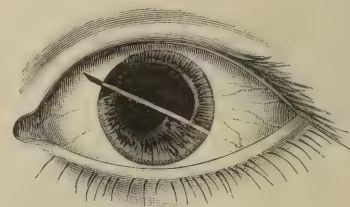


FIG. 2.

of his pupil under atropine, altered by the iridectomy and the anterior synechia, at the time of his discharge is shown in fig. 2.

The vision of his left eye at this time was $\frac{6}{8}$; he had no pain nor any appreciable inflammatory disturbance in it. The vision of the right eye was $\frac{6}{6}$. He attended regularly for six months, during which

time there was not the slightest evidence of sympathetic irritation in the right eye. On January 8, 1892, the vision in left eye was $\frac{6}{36} \bar{c} + 3$ D. cyl. ax. $140^\circ = \frac{6}{18}$ (not improved beyond).

In spite of the extensive sclero-corneal cicatrix, the anterior synechiæ and the irregular astigmatism caused by the scar, the eye remains a most useful one. There is binocular vision, the lens is *in situ* and perfectly transparent, the fundus oculi, too, is healthy. It appears to me most remarkable that so extensive a wound should not have damaged the lens. The involvement of the ciliary region also has given rise, so far, to no sympathetic disturbance. These two facts are, in my opinion, sufficiently interesting to justify the report of the case as a good illustration of conservative surgery.

TYPHOID FEVER AND OYSTERS

Sir William Broadbent records ('British Medical Journal,' Jan. 12, 1895) six distinct cases in which it seems evident that typhoid fever was attributable to the eating of oysters.

In all these instances there was very convincing evidence that no other source of the disease existed.

One was a case after parturition, in which great care was taken to prevent possible infection.

Other similar cases were known to him, and he knew several instances of typhoid occurring to gentlemen engaged in the City, their families at home not suffering, and on inquiry it had been found that they frequently took oysters for luncheon.

Dr. H. W. Conn, Professor of Biology in the Wesleyan University, Middletown, Conn. ('Med. Record,' New York, December, 1894), reports a most complete instance of typhoid fever being transmitted in this way among the students of the University. Twenty-nine cases of the fever occurred out of one hundred students, and after most careful inquiry the fever was clearly traced to the eating of oysters provided by one dealer, oysters from other sources not having the same effect. It was subsequently found that within a hundred yards of the spot where these oysters had been deposited for two days to 'fatten' was the outlet of a private sewer, coming from a house where typhoid fever had recently occurred.

At the time when the oysters were exposed to this sewage the fever was in the early stage, before the nature of the illness had been recognised, and therefore before the excreta had been disinfected.

Mr. W. J. Black, F.R.C.S.E., of Edinburgh, thinks that the typhoid probably comes from the oysters reared in tanks. These tanks exist at Ostend, and at other places on the Belgian and French coasts; the water in them is very foul from want of change and want of vegetation. He states that people who eat oysters at these places generally suffer bad effects.

Sir Charles Cameron (Medical Officer of Health, Dublin) says that 'with lobsters and crustaceans generally' there need be no interference, as no danger is incurred by eating them even when they have fed in foul water' ('British Medical Journal,' January 19, 1895) but he does not state why he considers this so. We would suggest that one reason is that we never eat them raw. However, the opinion of their innocence in this respect is not shared by all observers.

Dr. Francis W. Clark has kindly sent us his annual report as medical officer of health of the borough of Lowestoft in which he refers to typhoid being probably caused by eating crabs. We quote from his report.

'The history of the attack is a most interesting one. The "Bethel," with a crew of eight hands, was fishing off Grimsby in September, and on or about the 6th of that month, when in the port of Grimsby, they exchanged a last of herrings for some crabs from a Grimsby crab boat, the crabs having been caught at the north entrance of the Humber. All ate heartily of them except one man (Bray, the mate), and all, with the exception of this man, were attacked the same night with cramps, vomiting, and diarrhœa. Four of them continued to suffer from diarrhœa and were unable to continue at work. They landed at Lowestoft on September 12, and during the following week were all reported as suffering from enteric fever. . . All of them subsequently recovered. As this occurred at the time that cholera prevailed at Grimsby, the incident was invested with more than usual interest, while it serves as an additional illustration of the fact that shell-fish gathered near the sewage outfall

of a town will, if eaten, occasionally account for an outbreak of zymotic disease, the origin of which would otherwise be very obscure.

In reference to this subject it may be interesting to refer to observations made forty years ago by Dr. William B. Carpenter in the 'British and Foreign Medico-Chirurgical Review,' 1853, page 167, where he describes how a cargo of oysters was distributed among the poor children of Bridgwater, and all who partook thereof were seized with cholera. At the meeting of the British Medical Association held at Cambridge in 1880, Dr. Cameron urged the necessity of caring for our oyster beds in an able paper, based upon the examination of oysters planted in Dublin Bay, which were found full of sewage.

We are informed upon good authority that large oyster beds exist on the south coast of Wales which are in close proximity to the outflow of the sewage of a large town.

Government enquiry.—It has been arranged, in accordance with the suggestion of the President of the Local Government Board, that an enquiry shall be made regarding the storage of oysters. The centres of oyster cultivation and rearing are being visited by Dr. H. Timbrell Bulstrode, who is one of the chief medical inspectors of the board. He will doubtless make a very thorough enquiry into the subject, a task for which his knowledge as a naturalist and bacteriologist especially fits him. Dr. Bulstrode is Hon. Sec. of the Epidemiological Society.

Raw vegetables as conveyors of typhoid.—It has long been known that typhoid fever is sometimes conveyed by means of watercresses, and the fact of sewage matter flowing into ditches which communicate with watercress beds explains this result. Celery also may become infected with the poison from the sewage with which it is customary to manure it, and doubtless other raw vegetables which possess any crevices in which contaminated fluid may lodge, and from which ordinary washing may fail to remove it, are sources from which the disease may be derived.

It is frequently thought by the public that these suggestions partake of the nature of 'scares,' and that it is impossible to guard against every source of fever, and therefore that it is not worth while to trouble much about the matter. We would, however, urge: (1) That typhoid fever is a very serious disease, either

fatal in itself, or, if recovered from, possibly leaving some permanent weakness behind, and (2) That the avoidance of a few articles of diet, the boiling of drinking-water, and the heating of milk as described in last issue, p. 32, will remove from us common sources of the disease, and that therefore such precaution is well worth the small privation and trouble which it necessitates.

COLCHESTER OYSTERS

By GEORGE BROWN, M.D.

Medical Officer of Health for the Borough of Colchester

Pyfleet is the name of the stock ground where the Colchester oysters are prepared for the market, and is about 8 or 9 miles from Colchester. It is a small creek between the island of Mersea and the mainland, and is free from the main current of the river Colne, which here debouches into the German Ocean. There is no likelihood of any sewage getting to this oyster bed, as all along the coast there are no houses, and the shore is not contaminated by the articles the main current takes to the sea. Before the oysters are placed here the ground is thoroughly cleansed; weeds and slimy mud are removed, and the bottom is made sweet and clean by dredging. About a fortnight's time is given up for the preparation of the ground. The oysters are taken from the Estuary when about four years old, and are each separately and singly handled and cleaned before being dropped into their Pyfleet bed. All that are weak or sickly are returned into the main channel of the river. The oysters, when about the above age, are deposited in the Pyfleet in April and May, and are ready for the market when the season opens in September. The main channel of the Colne, near Brightlingsea, is the breeding ground of the oyster, and the Pyfleet is the fattening station, both places being apparently meant and prepared by nature for these two purposes.

The borough of Colchester has spent about 60,000*l.* for the double purpose of the sanitation of the town and to protect the oyster fishery from any contamination that might interfere with its prosperity, and this has been successfully accomplished.

The company that carries on this work is the 'Colne Fishery Board,' consisting of twelve members; six belong to the corporation of Colchester, and six outside the corporation who live near the Fishery.

The company is fully aware of the importance of their Fishery, and it is being developed more and

more every year. The work is carried on under the supervision of Mr. Newman, with a large staff of men and boats, and the chief constable of Colchester with a posse of police protects its property.

The 'Pyfleet oyster' stands alone and unrivalled as a Colchester Native, and this name has locally and in the trade a distinctive meaning, as it is not surpassed in succulence, flavour, and beauty by any oyster in the world.

The oyster's food consists of 90 per cent. vegetable matter, and it is very particular and choice in its diet, passing several thousand gallons of water through its system in 24 hours. It abominates dead animal matter as food, and does not thrive in polluted or stagnant water. It cannot live in fresh water.

THE RELATION OF BACTERIA AND THEIR TOXINES

Dr. Klein read a paper before the Epidemiological Society on December 14, 1894, under this title ('Lancet,' January 5, 1895).

He formulated two propositions, giving facts in support of each, and then discussed certain considerations having to do with the subject.

Proposition 1: Pathogenic bacteria produce by their growth and multiplication specific poisonous substances which we call toxins.—These poisons differ one from another according to the species of pathogenic bacteria, and the changes induced in the animal body by different microbes are due to these toxins. . . . A whole series of researches have been made by Kitasato and Brieger on the tetanus bacillus, with the result of demonstrating that injection into the animal body of the pure tetanus toxins obtained in artificial culture produced symptoms identical with those induced if the tetanus bacteria themselves were introduced into the experimental animal and allowed to grow and multiply therein. There can, therefore, be no question whatever as to the proposition that the pathogenic bacteria produce in the animal body toxic substances.

Proposition 2: Toxins as far as they have been investigated are definite chemical bodies.

After giving evidence of the truth of this proposition, Dr. Klein said: What, it may be asked, is a given toxin? Is it the secretion of a bacterium,

like the ferment of diphtheria, for instance; or is it of the nature of a proteid body liberated by metabolism in the medium in which the bacterium has grown; or, again, is it part and parcel of the bacterial body itself? The poisonous substances produced in the animal body by the life processes of bacteria must be carefully distinguished from the poisonous substance or substances present within the protoplasm of the bacteria themselves. All observations tend to show that there is a definite distinction to be drawn between the poisons which may be present in the bacteria themselves and the poisonous substances liberated or elaborated by these organisms. When certain bacteria are introduced in large quantities into the peritoneal cavity of a rodent, these bacteria themselves, without any of their metabolic products, are capable of producing symptoms of poisoning. For instance, if the growth of a given microbe scraped from the surface of a solid culture medium be distributed in some neutral fluid and then injected into an animal, it is the bodies of the bacteria themselves that are introduced thereto, not the toxins, which they have elaborated in the culture medium. And it has been found, as a matter of experiment, that such inoculations produce, in the case of several species of bacteria, a poisonous action quickly causing fatal peritonitis; in two or three hours the animal is ill, and within twenty-four hours the illness is fatal. The typhoid bacillus and several other microbes behave in this way. It matters not whether the bacteria are introduced alive or dead into the peritoneal cavity. If the bacteria are previously killed by exposure to a temperature of 70°C., their bodies produce the same poisonous action, though it must be added that the poisonous action is more pronounced if smaller quantities of the living bodies are used than when larger quantities of the dead bacteria are employed. Evidently, when the living bacteria are introduced in small quantities, they go on growing and produce their toxins. The bacteria *per se* are in some cases, but not in all, poisonous, for, if the anthrax bacillus, or the diphtheria bacillus, or the fowl cholera bacillus, is introduced into the peritoneum of rodents, no poisonous action results.

The nature of antitoxins.—When an animal has passed through one attack of a given infectious disease—that is, when an animal has served as a host for the growth and multiplication of a particular pathogenic bacterium—it is found that its blood has acquired a peculiar faculty. The blood has become

capable, not only of inhibiting further growth of the bacterium, but also of neutralising the toxins produced by the bacterium. Thus, if the cholera vibrio is introduced into the peritoneal cavity of a rodent in quantity just sufficient to produce an illness that does not prove fatal, such rodent ultimately withstands repeated injections of otherwise fatal doses of the vibrio. And further, if now blood of the animal that has thus acquired immunity is taken from it and introduced into the peritoneal cavity of another rodent, this second animal will not become ill at all; it is protected. This has been shown in the case of tetanus, diphtheria, and so on. Animals, therefore, which have acquired immunity possess in their blood a something that they had not before, and this something belongs to a group of substances called 'antitoxins.' These antitoxins must be very complex bodies, because they are capable, not only of inhibiting the life processes of bacteria, but also of neutralising the toxins previously elaborated and that have been dissociated from the bacteria which produced them, and these two functions are, be it observed, utterly different.

He then discussed how these **complex antitoxin bodies possessing dual functions are produced.** He referred to various theories, and stated that in diphtheria the antitoxins produced in this way by the cells of the tissues are considered to comport themselves just like ferments. This is the theory held by the French school. The Munich school says: There is no reason why the toxins themselves should not become converted into antitoxins. There is, however, little evidence in support of this view; and, indeed, there is some evidence which militates against it. Moreover, it seems to be reasonable to assume that the toxins stimulate the animal body to the production of antitoxin. There is yet another theory, and that is that possibly the bacteria indirectly play a part in the production of these defensive antitoxins.

In conclusion, he said: In a word I suspect that antitoxin serum obtains from dead bacterial protoplasm that it has assimilated, its power of inhibiting the processes of living bacteria, and that its power of neutralising the already formed metabolic products of bacteria is due to tissue change resulting from contact of the tissues themselves with metabolic poison. But, whatever the nature of these antitoxins, it will, no doubt, be found that they are not of the simple character that has been assumed—namely, merely secretions of tissue juices—they must needs be of a very much more complex nature.

Epitomised Lectures and Papers

INFANTILE MYXŒDEMA¹

By W. P. NORTHRUP, M.D.

Adjunct Professor of Diseases of Children, Bellevue Hospital Medical College; Visiting Physician to New York Foundling, Presbyterian, and Willard Parker Hospitals; Consulting Physician to New York Infant Asylum.

[I am indebted to Dr. DILLON BROWN, the Editor of the 'Archives of Pediatrics,' for the use of the blocks of the illustrations below.—ED.]

THE purpose of this paper is to discuss Myxœdema as illustrated by two cases systematically observed in hospital (Presbyterian, New York).

CASE 1. Infantile (or congenital) myxœdema under thyroid treatment, eighty days. Little improvement.—This patient was described by Dr. Northrup upon seeing it as 'a pale, frowsy, stumpy idiot.' 'Female; nine years old; parents not consanguineous; labour normal, not tedious, no instruments; up to nine months of life considered a perfect child.

'Of the parents it may be said the father is a large, florid, powerful man, American by birth, now forty-five years old. The mother is now thirty-nine years old, is strong and healthy, has had five children and several miscarriages. The patient is the fifth child. Two are living and healthy, the previous two are dead, one by accident, the other by an acute infectious disease.'

When the child was about nine months old her mother thought that she did not sit up as the others had done, and she sought advice for the supposed weakness of the spine. At the present age of nine years, this child is not advanced mentally beyond what she was at nine months, and physically is 'merely thickened.' During that time the mother had sought advice in all directions, with no apparent good effect.

Condition of patient.—The first impression Dr. Northrup received was that the patient was an idiot; head large, colour 'peculiarly tallow-like,' not yellowish as many describe it, and scarcely waxy. Hair thin, but long, dry, and spreading, like brown hair that has been washed and dried, with no lustre.

¹ From *Archives of Pediatrics*. A paper read at the sixth Annual Meeting of the American Pediatric Society, 1894.

The paper goes on to state: 'This cretin has the characteristic flattening of the bridge of the nose, a tilting back, the nostrils facing forward, *retroussé*, as some one describes it; diffuse swelling of the underlids, puffiness of upper; pendulous cheeks, thick anæmic lips with protruding, swollen, pale tongue; the lips and tongue tending to dry. Has fourteen first teeth, those on the upper row eroded, appearing only at the bottoms of a series of ulcers in the upper gums. Lower teeth nearly the same and the gums in a filthy suppurating

also the parchment-like wrinkling very similar to the wrinkling of a glove. Palms and soles are dry and parchment-like. As to œdema—this case never suggests the idea of hard or firm œdema. The feel is best described as puffiness or flabbiness. If one grasps the arm to lift the child, as ordinarily, one is surprised at the sensation: the grasp seems to sink down upon the bone-shaft, the flesh seeming to contain nothing but a jelly-like flabby fat which squeezes out between the fingers. The legs are the



FIG. 1.



FIG. 2.

condition. A heavy sweetish, characteristically offensive odour about the mouth is always present. Indeed, this was the one thing which made the patient a little unwelcome in the ward. . . . The arms and legs are thick, the feet and hands stumpy, the belly prominent and embossed with the usual umbilical hernia. The skin is pale and peculiarly mottled purplish, as seen in profile upright figure. The eyes are dark blue or grey. The usual dorso-lumbar posterior spinal curve, so often observed, was present in this case. The skin, though never sweating, was soft and not abnormal, except upon the hands and feet. The hands have

same. Again the absence or weakness of muscle is suggested by the flopping about of the head, as the child is lifted. The child cannot sit up, can just balance its head when the trunk is supported upright. It can stand when once balanced and allowed to grasp some fixed object.

'The supra-clavicular pad mentioned by most writers is present, and is soft and flabby. The thyroid gland seems to be present and possibly a little enlarged. The sterno-cleido-mastoid muscle feels like a tape in the flabby neck, and beneath it can be rolled about the lobe of the thyroid.'

Disposition of the child.—She was unusually quiet, absolutely passive, and would sit for any time tied in a small chair, with her eyes wandering about the ward, and doing everything slowly. Mental sluggishness was a feature. Could only say *da-da*.

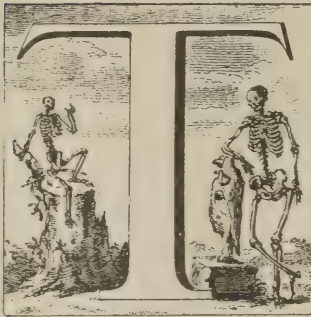
As to attention to functions, she was like a child of nine months. Temperature in rectum varied between $97\frac{1}{2}^{\circ}$ F. to 100° , and respirations 16 to 20. Pulse 80 to 88.

Treatment.—Bowels at first constipated, relieved by laxatives. On the fourth day thyroid extract was commenced. Dr. M. A. Starr, Consulting Physician to the hospital, and Dr. George Crary concurred in the plan followed.

'Crary's formula of glycerine extract of sheep's thyroid gland, each drachm representing a gland of a yearling, was secured. The directions were to begin with one minim three times a day, increasing the dose

William Cheselden, F.R.S.

BORN 1688. DIED 1752.



THE excellent mezzotint of this celebrated surgeon, of which we give a facsimile representation, was engraved by J. Faber, after the painting in the Royal College of Surgeons by Jonathan Richardson. The engraving was made the

year following Cheselden's death.

We are indebted to Dr. Payne's article in the 'Dictionary of National Biography' for much of our information, and we are quoting him in stating that William Cheselden 'will always be regarded as beyond dispute one of the greatest of British surgeons.'

Cheselden's character was of that energetic, bold, and practical nature which must always command admiration. As a teacher of anatomy at a time when difficulties existed as regards dissection to which we are now happily strangers, he found it necessary for teaching purposes to dissect in his own house, and consequently brought upon himself the censure of the Company of the Barber-Surgeons.

He was let off, 'but,' say the Annals of that Company, 'a less influential man would probably have been fined.'

As a surgeon, Cheselden was celebrated for his skill generally, but it was in respect to his lateral operation for stone that he became chiefly renowned. As the reader probably knows, this operation was based upon the unscientific, but very successful, performances of the French friar Frère Jacques.

Lateral lithotomy was brought by Cheselden to 'such perfection of detail as has hardly been improved upon up to the present day, and to have invented this alone would be enough to make' his name 'a

landmark in the history of surgery. This classical operation was first performed on March 27, 1727.'

As a commentary upon the monetary recognition of surgical skill in the present day, we may mention that his fee for operating was 500*l*.

Cheselden was also the first surgeon to perform an operation on the eye in 'certain forms of blindness, for the formation of an opening to serve as an artificial pupil.'

His contributions to the study of anatomy were also considerable and valuable.

He fully recognised the advantage of drawings, and his large work on the bones called 'Osteographia' is one of the most splendidly illustrated works on the subject ever published; the plates not only possessing great artistic merit, but being extremely accurate.

We have the good fortune to possess a copy of this work, of which only a limited number were printed.

Cheselden used a large camera obscura for drawing his subjects, so as to insure accuracy, and he employed chiefly Vandergucht, a Dutch artist, to carry out his work, also doing some of the etching himself, and, in all cases, closely superintending what was done.

This book is adorned with representations of the skeletons of various animals and artistically designed initial letters, some of which we have copied for this journal.

William Cheselden was surgeon to St. Thomas's Hospital, and subsequently to St. George's when the latter was founded in 1733-4. He was one of the last Wardens of the Barber-Surgeons' Company, immediately before the separation of the surgeons and barbers in 1744-5.

He was born (1688) at Somerby in Leicestershire, died at Bath (1752), and is buried in the grounds of the Chelsea Hospital.



J. Richardson pinxit

William Cheselden Esq^r

J. Faber fecit 1753.

*Surgeon To her late MAJESTY Queen CAROLINE
Surgeon to St. Thomas's Hospital, & to the Royal-
College at Chelsea. Fellow of the Royal Society
And Member of the Royal Academy of Surgery at Paris.*

one minim every second day, until the temperature rose, and try and keep the temperature at a point just below 100° F. On the fourth day the temperature overstepped the limit, and the thyroid was stopped for a while.

'Two days later her appetite was improved, breath not offensive; taking milk and solid food very well. Up to her arrival at hospital she had taken only milk and potato.

'Eight days later it was reported "*tongue is much smaller.*" The measurements of the body remain the



FIG. 3.

same. For another week of the thyroid treatment the temperature kept within normal limits; then it went too high, and the treatment was again suspended.

'On this day the infant cut its first canine tooth. Thus far four minims of the extract had been the highest daily dose. The first day the temperature declined to normal the thyroid was again begun.

'The pathologist's report on the blood was as follows:—

"Hæmoglobin, 45 per cent.
Red cells, normal."

'White to red as 1 : 230, that is, somewhat increased. The urine could never be obtained, so we have no examination of it.

'On the 28th day in hospital the cretin developed pneumonia, which ran its entire course in fourteen days; temperature of first three days 100½°, 101½°, 103° F.; physical signs dulness, bronchial voice and breathing, posterior, upper, lung. Thyroid suspended for a few days and begun again. During this temporary suspension of the specific treatment the tongue swelled, diminishing again after treatment was resumed.'

Three weeks later the improvements had continued. Tongue smaller. Bright expression of countenance and ability to take varied food. Two more teeth cut.

In conclusion: the child was improved in these respects, viz. tongue smaller markedly, countenance brighter, taking more food and greater variety, any soft food, tomato, gravy, rice and oats; eats heartily, almost too much. Under treatment lost weight at first, remained stationary later. It was thought that she acquired her ability to stand by a fixed object while in hospital, but the mother insists she could do as much before. Cut two teeth (canines). No improvement in speaking. Bowels now regular. The snoring, which was at first a marked symptom, was no longer present.

'CASE 2. Infantile myxœdema.—Harry N. (patient of Dr. B. Sachs). German descent, male, twelve years old. In hospital seventy-six days, improved; family history not known.

'In general appearance (as shown in the photograph) he is short and stumpy, head large, long antero-posteriorly, broad across the eyes, flattened at bridge of nose, nasal openings pointed forwards, limbs thick, stubby, abdomen prominent. Looks fairly intelligent, eyes bright. On first sight of him one would not be sure he could be classed among cretins.

'On asking his name, age, &c., his peculiarities were marked. If for the hundredth time one were to ask him sharply for his name, he would look straight into the eye of his questioner, and seem to be mentally rummaging to find it, then his lips would begin to shape themselves, he would take a long breath, open his mouth, and yet the answer would not come. It was as though the answer had to travel the length of the ward or had to find its way through tortuous paths, until at last it reached his lips, and he uttered in a thick, half-nasal mumble, Hangree Nee-d-m-nn (Henry Needleman). Then ask his age, and he had regularly

to take even a longer time. One seemed to see from the light in his eye that he was confident he would announce his age, but the central windings seemed always to be longer than on his name. Even if one regularly, again and again, alternated the questions, his delays were equally prolonged, and "twulf nyearn" (twelve years) seemed to delay his cerebrations more than "Hangree Nee-d-m-nn."

'Beyond answering the above questions I seldom heard him speak. He moved about the ward with a stiff, straight-backed, rocking gait, somewhat awkwardly. It was said he could run, but I never saw him. He always followed about with the doctors, visiting every bed, seemed to be very happy and fond of company, but seldom spoke. From his eyes one would think him intelligent, happy, with a rather bright appreciation of humour. He certainly had the characteristic good nature of all cretins.'

Thyroid extract (Crary's) one minim three times a day. Temperature was slowly increased from normal.

'In the third week of treatment it touched once a day 100° , $100\frac{1}{2}^{\circ}$, and dipped twice to 97° , subsiding at night to normal. Thyroid extract was never increased over five minims a day, and stopped temporarily whenever the temperature went above 100° .

In the fourth week the temperature reached $103\frac{6}{10}^{\circ}$, and after thyroid extract had been stopped two days, then gradually subsided and began sharp excursions in the other direction to $98\frac{1}{2}^{\circ}$, mounting to 100° on the same day.

'Temperature with a certain amount of regularity was down all night, and high several hours during the day.

'The progress was favourable in the following respects. Mentally brighter, slightly more active, growth in height $1\frac{1}{2}$ cm. Mentally improved.'

Conclusion regarding the two cases. 'The judgment of those concerned was that for six weeks our two cases seemed to improve. The treatment will be continued, in the first case, to a year or more. We cannot be counted among the enthusiasts in cretin treatment, but, if we can let a little light into these brains, and get them even two or three years old, they may become of a certain amount of comfort to their parents, and certainly be less helpless.'

Figures 1 and 2 indicate case 1. Figure 3 represents case 2.

INJURY TO THE BRAIN FROM CONCUSSION

(A CLINICAL LECTURE)

Delivered in connection with the London Post-graduate Course at the Central London Sick Asylum, Cleveland Street, October 18, 1894.

By THOMAS BRYANT, M.Ch., F.R.C.S. E. AND I.

Consulting Surgeon to Guy's Hospital

The 'Clinical Journal' for October 31, 1894, contains a full report of this lecture, the more important points of which are given below.

The meaning of Concussion.—Mr. Bryant considers that the term 'concussion of the brain' as generally employed is as confusing to the medical as it is to the lay mind. What we mean by 'concussion of the brain' is injury to the brain as the result of some shaking force applied from without either by a fall from above on to the head, or by a blow applied to the head. A slight blow on a thin skull may cause a fracture, and no general cerebral injury; whereas a severe external force may fail to cause a fracture of a thick skull, although it may start such intense vibrations within the cranium as to cause bruising or laceration of the brain, either of its surface or of its substance, at a point remote from the seat of impact, and even at times produce laceration of the venous sinuses or of the middle meningeal artery. In the former case where there is a local fracture the injury, on the face of it, looks severe, whereas it may be comparatively trivial, since there is no cerebral injury. In the latter instance, where there is neither wound nor fracture, the injury may appear slight, although in reality it is one which bodes death from cerebral mischief.

'Post-mortem' knowledge.—The surgeon, who goes to the post-mortem room for information, knows too well that in every case of cranial injury of any importance there are certain brain changes common to most, if not all, which should be fully recognised and taken into account in its diagnosis, prognosis, or treatment; and that, should a fracture with or without depressed bone, coexist with intracranial hæmorrhage, such a condition had better be regarded as a complication of the common factor, than as one which stands alone. For example, a man falls or receives a blow upon the head, and is for a time 'stunned'—that is, rendered more or less senseless from paralysis of brain function; he is said to be suffering from

'concussion of the brain,' whatever that term may mean. Another man, as a result of the same kind of accident, receives in addition to the 'stunning' a scalp wound, with a fissure either in the vertex or base of his cranium; and he is described as one who is suffering from a compound fracture of the skull, either of the base, vertex, or of both. A third man comes under observation in the same state of so-called concussion, but with a depressed fracture of bone, complicated or not with a scalp wound, and as a result of this depression there may or may not be other symptoms, or those present may be intensified. Under either circumstance, however, his case is described as one of depressed fracture of the skull, giving rise to compression of the brain. Yet in all these different classes of cases there is one common injury, one common source of danger, present or remote—viz.: the condition of the brain which is associated with the injury, and which has been brought about by the 'stunning' force. If the general cerebral injury be trivial, the local complication of a scalp wound, or even of a fissured or depressed fracture, is, although serious, comparatively unimportant; if it be of a grave nature, the local complication must, however great, sink into insignificance.

Pathological results of 'Concussion.'—An important question arises, What are the changes found in the brain after so-called concussion of its substance, or rather shaking of its structure? At Guy's Hospital for at least a quarter of a century there was no case of head injury examined—and such includes every case—in which there was not found some coarse brain lesion, readily visible to the naked eye; in which there was not some contusion of the brain surface, some laceration of the surface of the brain or of its substance, or more or less hæmorrhage upon or into the brain. In fact, concussion, in a pathological sense, has been, in my experience, synonymous with contusion or laceration of the brain.

All authorities now agree that, when death follows a severe shaking or concussion of the brain, contusion, bruising, or laceration of the brain is invariably present, and that when this is not found the death is probably to be ascribed to some other than a cerebral cause; and Mr. Bryant proposed, later on, to show that when death does not take place as an early result of the damage, and the patient either dies of some other affection or of some remote consequence of the injury, the same evidence of cerebral contusion is generally

present. When, moreover, extravasation of blood upon or into the substance of the brain follows 'concussion' or rather vibrating injury, it is to be explained in the same way—that is, by some injury done to the vessels of the brain itself, or to the venous sinuses within its membranes. When due to the bruising of the brain itself, the seat of injury is probably found on the side of the brain opposite to that of the cranium which received the blow; the bruising being brought about by what is rightly termed 'contrecoup.'

When the extravasation of blood is upon the surface of the brain, it is either within the cavity of the arachnoid or the meshes of the pia mater; and under each condition the blood gravitates to the base. When the extravasation of blood takes place into the structure of the brain, it may be found in any part of the cerebrum, cerebellum, pons Varolii, or even in the ventricles, the extravasation rarely showing itself in the form of one large clot, but commonly in small and numerous spots, as if from small vessels, which cannot be wiped away.

When fissured fractures of the cranium complicate brain injuries, and these fractures are the result of some diffused force, the cerebral mischief is not likely to differ from that which has been just described, although, as the force to produce a fracture may presumably be greater than that which fails to do so, the intercranial injuries may be greater from the cerebral vibration.

Complications.—In some cases the brain itself may, in addition, be bruised at the seat of impact. On the other hand, where the force which produced the fracture is concentrated, or the brain-case thin, there may be more of brain injury at the seat of fracture, and less of distant mischief from brain vibration. And with the fracture there may be certain special complications, such as depression of bone with or without compression of the brain, injury to the dura mater, membranes, or brain from the fractured bone or external force, and extravasation of blood between the dura mater and the bone from rupture of the middle meningeal artery or some venous sinus. But all these are complications of, and additions to, the general injury. It must not be forgotten, however, that in exceptional cases a fracture of the skull may take place from a concentrated local violence without producing any cerebral disturbance, particularly over the frontal region.

Is a bruised brain ever thoroughly repaired?—The foregoing evidence suggests the questions: Is a bruised brain ever thoroughly repaired? and are not the changes which the injury may have brought about fixed and permanent? It is to be regretted that an answer to these questions can only be given in an unfavourable form; and that, whilst we may be hopeful as to complete repair and recovery from a slight injury or bruise, we are bound to regard graver cases in a more serious light, and to deal with them accordingly, since what evidence we possess seems to show that, when any portion of the brain has been severely or moderately bruised, it has been permanently injured. This evidence also dovetails in with the general experience, which tells us not only of the presence of physical head symptoms, but that the mental and moral characters of men are often permanently altered by a head injury.

[A very notable instance of such a result occurred to our knowledge some years ago. A young surgeon, whose career had been of the most exemplary kind, who had passed through all his examinations with credit, who had started in practice with every indication of doing well, and who was looked upon by all who knew him as a straightforward and honourable man, met with an accident, was thrown from a dog-cart, and suffered from 'concussion of the brain.' Having apparently recovered from the injury, his future career was one of dissimulation and fraud. The sudden change in his character led him to impose with comparative facility upon his former friends, and there were very few of his old fellow students who did not suffer in this respect. His manner was the same as it had ever been. He dressed well, and spoke in his old tone and manner. He concocted stories of the most plausible nature, and carried out his schemes for getting money under false pretences with the most consummate skill. The ultimate history of this sad case is, perhaps happily, unknown to the writer.—ED. 'Clinical Sketches.']

Mr. Bryant, continuing his lecture, said:

'With these facts and conclusions before us, am I, therefore, wrong in assuming with some confidence that you will see with me the expediency of combining with the term 'concussion' that of 'injury,' and of describing such cases in the future as those of bruising or injury of the brain from concussion? Scalp wounds, the result of external violence, should assume

a more serious aspect in the surgeon's mind than they have yet attained; for in even such an apparently simple accident as a contusion of the head, whether with or without a scalp wound, the fear of this secondary danger ought not to be overlooked.'

Secondary results of injuries to the skull.—Surgeons, Mr. Bryant thought, have been prone to treat too lightly the risks of a secondary otitis following bone injury, whether complicated or not with scalp wound or even with fracture. As a result, he felt sure that many lives are lost yearly, and that many narrow escapes from death occur. The lecturer further remarked that he had the notes of some fatal cases of the kind. In four of these the immediate cause of death was pyæmia, and such a result was probably brought about by the inflammation of the venous channels of the diploë of the injured bone.

Otitis and necrosis.—The cases were all examples of otitis and necrosis, the result of a contusion of the bone associated with scalp wound. 'I could give as many more associated with fracture if they were needed, and they would all tell the same tale. In none of the cases were there any symptoms of brain injury after the accident, and in most the symptoms did not appear for a week or ten days or a fortnight afterwards. In all, the mischief which produced death had clearly originated in the bone. In none of the cases had much care been employed to guard against the secondary mischief which took place, and which led on to a fatal issue; and it may reasonably be thought that, if judicious treatment had been applied from the receipt of the accident, no such result would have been recorded. The conclusion is, therefore, clear, that all scalp wounds which lead down to bone should be dealt with, for at least a fortnight or three weeks, with much care; and that such cases should, if possible, be treated as in- and not out-patients of hospitals for that time. For it is not the wound treatment only which calls for care, but the patients should be kept quiet, and given a simple unstimulating diet. Stimulants of all kinds should be forbidden, and meat allowed in very limited quantities. If, at the end of two or three weeks, or thereabouts, no local or general symptoms appear to suggest mischief, the duties of life may be gradually recommenced. But even then a caution should always be given to observe care.

Local treatment.—‘When local symptoms appear, such as have been described, a free incision down to the bone where no wound exists, or a free separation of the pericranium where there is a scalp wound, always does good. And should any symptom appear or persist which even suggests any intercranial complication, the operation of trephining should at once be resorted to. “The spontaneous separation of the pericranium, if attended with general disorder of the patient, with chilliness, horripilation, languor, and some degree of fever, appears to me,” says Pott, “from all the observations I have been capable of making, to be so sure and certain an indication of mischief underneath, either present or impending, that I shall never hesitate about perforating the bone in such circumstances. . . . When there is just reason for supposing matter to be found under the skull, the operation of perforation cannot be performed too soon; it seldom happens that it is done soon enough.”’ Mr. Bryant emphasised his subject by saying: ‘When a blow upon the head is known to have produced a fracture, the case is likely to be treated carefully; whereas, when no such fracture can be made out, and there is little or no external evidence of injury, the same care is not likely to be observed, although in both cases the violence which had been employed may have been equal.’

Time necessary for repair of brain contusion.—In cases of injury of what may be called the coarser structures, with more simple functions attached to them, we see that without perfect restoration of the structures their functions are not efficiently performed, and if used too early and too much they become painful, and assume a chronic inflammatory condition. Such soft parts require weeks or months for their repair. Surely, then, we ought not to deny the necessary and proportionately much longer time for the repair of the more delicate brain tissues—a repair, be it remembered, which cannot be accomplished by any direct aid from the surgeon, but only by Nature herself employing her chief agent—‘rest.’

Treatment of inflammatory symptoms.—Should symptoms of intracranial irritation or inflammation show themselves, they should be dealt with actively, as, from the nature of the brain and its membranous coverings, the process once started soon spreads. In the early stage the application of cold to the head by

means of a Leiter’s metallic tube is the most efficient local, and free purgation the most effective general, means, with a very low diet. If the inflammatory action is great, a free bleeding from the jugular vein, or from the arm, is strongly to be advocated, and this operation may, in many cases, be repeated with much advantage. I am convinced I have saved some lives by this treatment. In chronic cases the value of mercury, taken internally, cannot be doubted.

Bone repair and brain repair.—A cranial fracture will heal in the same way as other fractures, but it will take a much longer period. In specimens 1084⁵² (eighty-four days), 1084⁵⁵ (ninety-one days), and 1084⁵⁶ (eight years), in Guy’s museum, this point is indicated. The fracture of the skull will at any rate probably heal sooner than the cerebral injury will be repaired. The treatment for the latter will consequently have to be continued after the fracture has healed. If the fracture be but *slightly depressed*, whether simple or compound, and it appears only as a *fissure*, the case had probably better primarily be left alone, and dealt with secondarily on the smallest indication of cerebral trouble; for in these cases there is rarely comminution of the inner table, and consequently nothing in the form of bony spicules to fret and irritate the dura mater, and thus help forward a meningitis.

The objects of trephining.—To trephine in order to elevate this form of fractured fissure would, therefore, be to add another danger to the case. If the fracture be *depressed, starred, or comminuted*, whether simple or compound, the elevation of the depressed bone should be the rule of practice, and the removal of all the splintered fragments of the inner table carefully carried out; the object of the operation being more to take away what, if left, must irritate the dura mater, and so add to the existing harm, than to relieve the depression. This operation should be performed as much in simple as in compound fractures, for the condition of the bones is the same in both; and with our modern treatment of wounds the danger of the operation in simple fracture is not materially increased. In *punctured fractures* the operation of trephining, undertaken with the object of removing the broken and displaced fragments of bone, should be a rule of practice never to be deviated from. The depressed and comminuted inner plates of bone to a certainty, if left, at a late if not early period of the

case, will irritate the brain and its coverings, and so set up an encephalitis.

'The operation of trephining, or of elevation of bone, in depressed fracture, is called for more with the object of removing from the brain what may or will be sources of local irritation than with any view of removing the effects of the depressed bone; for it is well recognised that, *per se*, a large area, and a considerable amount, of depressed bone is required to bring about symptoms of compression in an otherwise uninjured brain; and it is also well known that a considerable extravasation of blood upon the surface of the brain, probably five or six ounces, whether between the bone and dura mater, or in the cavity of the arachnoid, is required to bring about marked evidence of its presence, in the form of paralysis from compression.'

FRACTURE OF THE BASE OF THE SKULL. A METHOD OF DIAGNOSIS

Mr. T. Lynn Thomas, F.R.C.S. ('British Med. Jnl.' November 3, 1894), describes the character of rupture of the *membrana tympani* in cases of fracture of the base as differing from that produced by other injuries, such as blows on the chin or a 'box on the ear,' and he submits that 'systematic injury of the ear in head injuries will give much assistance in clearing up the nature of the injury.'

In fracture of the base of the skull in which there is hæmorrhage the fissure is usually more or less vertical, extending from the periphery to the centre of the membrane; in the five cases he had examined in



THE LEFT TYMPANIC MEMBRANE, SHOWING TWO VERTICAL SLITS. THEY ARE TRIANGULAR, WITH THE BASE AT THE PERIPHERY OF THE MEMBRANE.

none did it extend right across. In one case there were two separate fissures (see fig.), and here both the roof and the floor of the bony meatus auditorius were fissured.

In all cases the periphery after fissure in the

membrane was close to the fissure in the bone, indicating, Mr. Thomas considered, 'the direction from which the fracture extended into the ear, and being caused by the gaping of the bone-fissure.'

POST-MORTEM PARTURITION

A case of post-mortem parturition is recorded ('Lancet,' Jan. 5, 1895) by Albert Green, M.B., L.R.C.P. (Lond.), M.R.C.S., of Chesterfield, Surgeon to the Chesterfield and North Derbyshire Hospital, involving **symptoms much resembling poisoning by strychnine, although no strychnine could be discerned post mortem.**

A single woman aged twenty retired to her bedroom about midday. Was seen by several members of her family during the day and evening, and until about 12.30 seemed to be well, otherwise than the headache. Between 1 and 2 A.M. she was found sitting on the floor with her back against the wall unconscious. She remained unconscious, but had a series of 'fits,' chiefly tonic convulsions, until her death between 9 and 10 A.M. the next morning.

She was seen by a medical man (Mr. Bowker) before death. He found that she was pregnant, and nearly at full time. He also thought that she was suffering from some alkaloid poison.

Dr. Green made a post-mortem examination fifty-three hours after death. Upon uncovering the body he found a nearly full-time child between the woman's thighs. It had evidently been a breech presentation. The uterus was inverted, the fundus protruding from the vulva, and the placenta was still attached. The umbilical cord was much shorter than usual. Intra-abdominal pressure prevented replacement of the uterus. The perineum was ruptured to a considerable extent.

Dr. Green could not say whether this rupture was post mortem or ante mortem, but there were no signs of bleeding.

'The evidence of the women who laid her out proved conclusively' (Dr. Green states) 'that there was no birth, and no signs even of an impending birth, at the time they performed those duties' (about two hours after death).

Putrefactive changes were very marked. The face was greatly swollen and black, and dark-green patches were present over the chest and to a less extent on the abdomen. The abdomen was greatly swollen, and on cutting into it gas escaped with great force.

Mr. Allen, of Sheffield, who analysed the abdominal organs and their contents, satisfied himself as to the absence of strychnia, but, in consequence of the advanced decomposition and the limit of time, he could not give an opinion about other alkaloid poisons.

Dr. Green thought that **the post-mortem birth was due probably to post-mortem contraction of the uterus**, or to pressure of gases generated by putrefaction, or to both these causes. He thought that doubtless labour had commenced previous to death.

At the inquest he expressed the following opinion :

(1) That the symptoms observed during life did not correspond exactly with those of any known poison ; (2) that puerperal convulsions would be sufficient to account for death, and probably caused it ; and (3) that it was possible for the child to have been expelled from the maternal passages after death if labour had commenced previously. A verdict was returned in accordance with the medical evidence.

Other cases of post-mortem parturition.—On April 13, 1872, a question was raised in the 'Lancet' as to whether a 'woman can be delivered of a child after she is buried.' This was answered by Dr. Aveling ('Lancet,' vol. i. p. 596, 1872) by the record of six remarkable cases, and he ends his narrative by quoting Sue, who states that it is the custom of some ignorant women, when enshrouding those dying pregnant, to place in the coffin a needle, scissors, and thread, proving that experience has taught them the possibility of a woman being delivered after death.

Two further cases are reported as having occurred in India ('Lancet,' September 1872, p. 473), and it seems not to be uncommon, in cadavers, for the pelvic organs to protrude through the natural openings as the result of great distension from the gases generated during decomposition.

Mr. Nankivell reports ('Lancet,' October 1890, p. 843) a thoroughly authenticated case, identical with those noted above, which occurred in his own practice in Africa, and which closely resembled another which is described on page 135 of the same journal. A large number of other cases are also recorded in the various journals, and may be referred to in the 'Medical Digest,' Section 1564-6. In the 'Medical Times and Gazette,' vol. i. 1860, p. 154, Dr. Smith remarks that frequently after carbonic acid poisoning, often caused by the use of charcoal fumes in order to relieve the pains of labour among the

Hindoos, the foetus is violently expelled after the death of the mother, due, apparently, to the direct elimination of the gas absorbed by the lungs and through the stomach and intestines, expelling the foetus from the compressed womb. The 'Philadelphia Medical Reporter,' in 1893, gave the details of a case in which a woman, aged thirty-five, had died undelivered, and after three days was buried. Thirty-eight days subsequently the body was exhumed, and a normal foetus was found between the thighs, the placenta being still in the vagina.

A NEW METHOD OF AMPUTATION OF THE BREAST FOR CANCER

Complete extirpation of the axillary glands is now frequently performed for cancer of the breast. The fascia of the pectoralis major muscle is also removed by many operators, because there are often cancerous nodules scattered widely through the gland, some of which may be adherent to this fascia. The supposed necessity of this extension of the operation is based upon the fact that, if the parts are carefully examined after removal, it will often be evident that extension of the cancerous nodules has taken place, and the removal of the pectoral fascia is then not less important than removal of the axillary glands themselves.

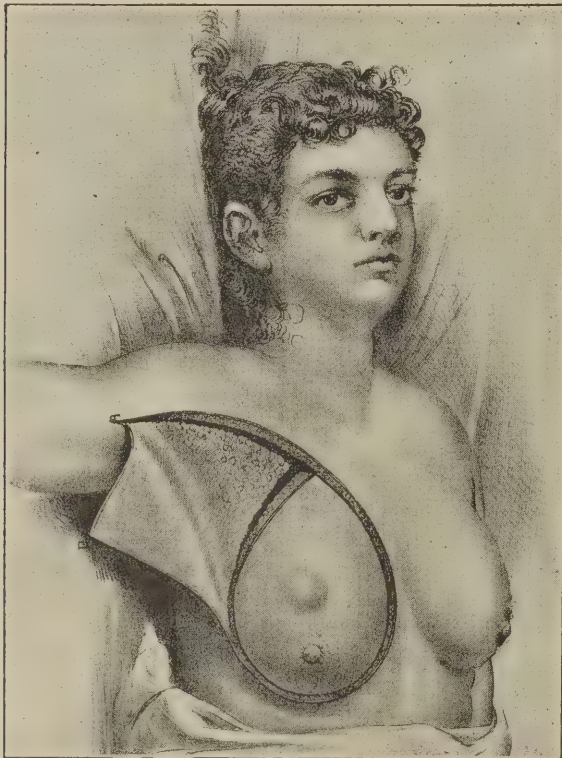
In following this plan of operation two elliptical incisions are made converging towards the axilla and from thence prolonged to its highest part. The elliptical incisions are made sufficiently wide of the nipple to avoid leaving behind outlying parts of the gland. The sternal edge of the gland is freed, and the pectoral fascia beneath is cut in a line running parallel to the sternum. The fascia is then dissected off and the muscle cleaned. The breast is raised with the fascia, and when the lower edge of the pectoralis major is reached, the continuation of its fascia into that of the pectoralis minor is carefully dissected up and the pectoral set of lymphatic glands removed. The latter part of this procedure is so conducted that the efferent lymphatic vessels are removed in conjunction with the breast and the glands and fat of the axilla.

A modification of this operation has been devised and put in practice by Professor W. S. Halsted, of Baltimore.¹ The essential part of the modification is thus described : 'The pectoralis major entire, or all of it except the clavicular portion, should be excised in every case of cancer of the breast, because the operator is enabled thereby to remove in one piece all the suspected tissues.' In the figure copied from Halsted's article the incisions are represented. The outer skin flap is shown dissected from the sublying fat which is continuous with that of the axilla.

¹ *Annals of Surgery*, November 1894.

The costal insertions of the pectoralis major are severed, and the splitting of the muscle, usually between its clavicular and costal portions, is continued to a point opposite the scalenus tubercle on the clavicle. At this point the clavicular portion of the pectoralis major muscle and the skin overlying it are cut through close up to the clavicle. The cut exposes the apex of the axilla. The splitting of the muscle is continued out to the humerus, and the part of the muscle to be removed is now cut through close to its humeral attachment. The whole mass, skin, breast, areolar tissue, and fat, circumscribed by the original incision, is raised up with some force to put the submuscular fascia on the stretch as it is stripped from the thorax close to the ribs and pectoralis major muscle.

The author gives minute directions for cleaning the axillary vessels, and removing the whole of the axillary contents in continuity with the breast. We have only quoted sufficient to show the main innovation in the mode of operating. It is claimed that no cancerous tissues are cut through in the operation, and thus the risk of leaving behind cancer cells, which may be the origin of late recurrence, is avoided.



Upon examination of the statistics given in Professor Halsted's paper, we cannot consider them satisfactory. Although recurrence occurred locally in only six per cent., yet twenty-four of the fifty were reported as dying, or suffering from return of the disease in some part of the body within a short period.

Three years seven months is the longest time of observation, and the majority less than two years, and of these latter ten died, or had a return of the disease. What is the value, we would ask, of the last six cases recorded as remaining quite well, as the time of observation varies from five weeks to three months after operation?

Upon the whole it seems that the results are no better than, perhaps not so good as, those which follow less severe measures.

There is no doubt that such heroic operations performed on cancerous patients are rarely followed by such complete convalescence as after simple extirpation of the mamma, and when the glands are extirpated as well as the breast in many instances the patients are invalids for the remainder of their lives.

New Apparatus

THE ANTITOXIN TREATMENT OF DIPHTHERIA

MESSRS. ADLARD & SON, of Bartholomew Close, London, E.C., have issued a specially arranged 'Chart for the purpose of obtaining careful and complete daily records of important Clinical Observations bearing upon the Serum Treatment of Diphtheria,' and to secure uniformity in such records for statistical purposes. It has been designed for them by Dr. Jobson Horne, late house-physician at St. Bartholomew's Hospital.

These charts provide for records of temperature, urine, parts of the throat, lymphatic glands, lungs, reflexes, &c. Also for points regarding the treatment by antitoxin.

With regard to recording the temperature, the Centigrade scale is placed beside the Fahrenheit for facilitating the estimation of foreign records. For the latter purpose we insert several metric tables on p. xix.

The price of the chart is 1s. for four copies; or 20s. per hundred.

Ladies' saddles and varicose veins.—It not unfrequently happens that ladies who ride much complain of the pressure under the right knee from the pommel of the saddle. This may cause soreness, excoriation, or a feeling of numbness, or may even conduce to or aggravate varicose veins. Under these circumstances the pressure will be a serious impediment to comfort, and may possibly interfere entirely with the taking of horse exercise.

There are several means by which this evil may be counteracted. Mrs. Hayes, who has written so much and so practically upon the subject of ladies riding, has a plan of her own, which, among other supposed advantages, would prevent, to a great extent, the pressure from the pommel in the cramped position here referred to. Mrs. Hayes extends the right leg and makes counter-pressure

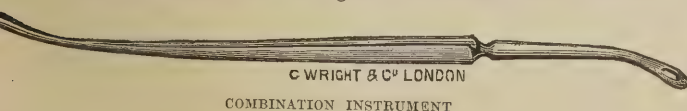
against the side of the horse's neck with her right ankle, using that leverage to press the right knee against the pommel. This lessens the chance of the leg grasping the edge of the pommel, the latter action being that which generally causes discomfort.



This position gives a very firm seat to the rider, but it is met by the objection that it is not very elegant in appearance, and that it causes a great strain upon the horse's shoulders.

What seems to us the best method yet devised for overcoming the difficulty is an extension of the pommel in the shape of a sort of ledge passing downwards from the pommel, so as to support the calf of the leg. This is a new invention brought out by Messrs. Champion & Wilton, of Oxford Street, of which we give an illustration.

A new combination instrument.—A single instrument which fulfils several purposes has advantages which are obvious. That which we figure below has been invented



by Mr. Marmaduke Shield, and is made by Messrs. Wright & Co., of New Bond Street. It may be used as follows:—
(1) As a separator for shelling out glands or cysts, or in operating for hernia or varicocele, or in ligaturing a main artery; (2) As an aneurism needle, for which purpose it

has an eye, with which a ligature can be passed round an artery, or the pedicle of an ovarian cyst, or round the cord in performing castration; (3) As a probe it is very efficient, and the director groove is useful in slitting up sinuses, or in fistula.

There is hardly any operation in surgery in which this instrument may not be useful; and it would be a welcome addition to any surgical dressing-case or colonial surgical outfit.

The Practitioner's Note Book

Severe hæmorrhage threatening death.—The artificial serum used by Lemoine¹ is made as follows:—

Sodium Phosphate	
Sodium Chloride	āā 3ij
Water	Oij

One and a half pint of this fluid was injected into the buttocks of the patient, a young woman, who had bled excessively during pregnancy. The patient recovered.

Cold-bath treatment of enteric fever.—Dr. John Haddon, of Hawick, has found that while the cold bath is a dangerous remedy, cold affusion is of the greatest benefit when the patient is delirious. Two tumblerfuls of cold water, dashed on a patient's chest, had so immediate and good effect, that he has since adopted the plan of cold affusion as first carried out by Dr. Currie, of Liverpool, in 1787. It is an item of treatment which does much good, and which can do no harm.²

Electric irritation of tongue from dental metals.—Mr. Chutter, an electrician, and not a medical man, records the case of a friend who suffered from constant irritation of one side of his tongue. The teeth were smooth, and a surgeon could find nothing wrong with the tongue. Mr. Chutter discovered that there were two metals fixing his artificial teeth to a composition plate.

Upon attaching a galvanometer by wires to the two metals, and the patient's tongue being applied to the part, a considerable electric current was generated.

An isolating varnish was applied to the metal surface, when all symptoms of irritation ceased.³

Apparent death from an electric shock.—In such a case the method of Professor D'Arsonval for cases of apparent drowning may be had recourse to.

Mr. T. E. Cutler, of the Stanley Electric Manufacturing Company, received a shock of not less than 4,500 volts, and recovered a few minutes after the treatment had been commenced.

¹ *Revue Médico-Chirurgicale des Maladies des Femmes*, Aug. 25, 1894.

² *Brit. Med. Journal*, January 12, 1895.

³ *Ibid.*

Mr. Cutler's sensation at the time of the accident was that of being violently drawn downwards by the arms. He apparently quite recovered in half an hour, but remained quiet the rest of the day.¹

Syphilis as a cause of general paralysis.—M. Fournier in 'Le Progrès Médical,' November 1894, analyses the statistics of twenty-seven different authorities, the results of which give 50 per cent. of general paralytics in whom there was a history of syphilis.

In fourteen cases under sixteen years of age thirteen were syphilitic.

There are four possible views as to the exact manner in which syphilis may produce this effect.

1. In conjunction with alcoholism, over-pressure, and nervous heredity as a previous disease, or
2. As a secondary condition ;
3. Acting directly on the nervous centres by its toxins ;
4. Or the action of the toxins after the skin and mucous membranes have been attacked.

The disinfection of medical fees.—Professor Demosthenes, of Bucharest, according to the 'Bulletin Médical,' has suggested that fees might convey infection when received by the doctor attending patients suffering from contagious disease ; and that they ought to be sterilised. 'The Boston Medical and Surgical Journal' (December 20, 1894) thinks that during the present hard times there is little danger from this cause, as 'these fees are not paid in most instances until months after the patient has recovered.' The danger, they think, would be far greater to the butcher and grocer, who are paid much more promptly.

Mustard as an antiseptic.—Dr. Roswell Park, Professor of Surgery, Medical Department, University of Buffalo,² advocates the use of mustard as a powerful antiseptic, the ordinary household mustard rubbed into the hands before washing having proved most efficacious in disinfecting the hands. He especially recommends it for this purpose after handling cases of erysipelas, diphtheria, &c.

Sugar as an antiseptic.—With regard to sugar Dr. Park remarks that 'if sugar will preserve fruit and various other substances put up for domestic consumption, it will also preserve human flesh ; and in the case, for instance, of a serious compound fracture, when nothing else is at hand,' this remedy should be used. Ordinary granulated sugar can be poured into an open wound or can be done up in a bag and wrapped round a wounded part, &c.

If procurable, a small portion of naphthaline may be added with advantage, being mixed thoroughly with the sugar.

Primula obconica. Its effect upon the skin.—Cases are recorded by Dr. E. Bonavia ('Prov. Med. Jnl.,' Jan. 1895), in which this plant has produced a local eruption on the

skin after being handled, sometimes affecting the face, probably from contact with the hands.

This plant being very decorative, having pale lilac or purplish flowers, it is not infrequently found in conservatories, and on the table ; and so it is well that its peculiar action should be known.

It does not affect everyone, but those who are susceptible seem to suffer severely.

The appearances of the eruption are those of 'aggravated prurigo with swelling and redness, as in urticaria, but without any whitish patches.'

Considerable irritation of the skin is produced, but this and all the symptoms are quickly removed by removing the cause.

Mr. Watson, the curator of Kew Gardens, in reply to Dr. Bonavia's inquiries, stated that his brother-in-law—a nurseryman—dared not touch this plant, and that it had poisoned some of his men.

Several instances of this result are given, happening recently, in which the cause has at first been a mystery.

Therapeutics

TREATMENT OF HERPES AND FOLLICULITIS VULVÆ¹

In the 'Journal des Maladies Cutanées et Syphilitiques,' Lutaud prescribes the following.

In beginning herpes of the vulva one of the following formulæ will be found useful :

1. R. Resorcin. 2 ;
Cocain. muriat. 1 ;
Spirit. vin. 100.
2. R. Acid. Carbol. 2½ ;
Cocain. muriat. 1 ;
Spirit. vin. 100.

Compresses moistened in these solutions are laid upon the vulva and covered with impervious paper ; they are changed three or four times a day.

Mostly, however, one sees the herpes fully developed, when this salve will be more appropriate :

- R. Borac. porphyr. 1 ;
Glycerole d'Amidon, 10 ;
Tinct. myrrh. gtt. 10.

After which a powder of

- Bismuth. subnitratis 4 ;
Calomel. 1,

should be dusted over them.

When the crusts have been removed :

- Pulv. lycopod. 10 ;
Tannin,
Bismuth. subnitratis, of each, 20,

will be efficient.

¹ Prov. Med. Journal, January 1895.

² Phil. Med. News, December 1894.

¹ Therapeutic Gazette, Philadelphia, Dec. 15, 1894.

When the folliculitis does not yield to simple remedies, then sitz baths or full baths of bran and starch, the vulva being washed morning and evening with hot soapsuds and powdered with

Acid. tannic. pulv. 2;
Bismuth. subnit. 1;
Amyl. 50.

In obstinate cases, painting the surface with five per cent. cupric sulphate once a week and washing off with strong salt solution. Pustules should be opened when they appear.—*Monatshefte für praktische Dermatologie*, August 1894.

TREATMENT OF METRORRHAGIA¹

Reinstadler, in 'Giorn. di Farm. e Chim.,' gives the following formula:

Ergotin, 10 parts;
Aque Destillatæ 70 parts;
Glycerin, 10 parts;
Acid. salicylic. $\frac{1}{5}$ part.

A tablespoonful of this solution in three tablespoonfuls of water is injected into the rectum, the patient lying upon her stomach.

Revue Médico-Chirurgicale des Maladies des Femmes, August 25, 1894.

Veterinary Notes

OR THE DOCTOR AND THE HORSE

BY A COUNTRYMAN

To be called up at any hour of the night to attend suffering humanity or, perhaps, humanity suffering in imagination, is never a pleasant matter, even if our journey is just round the corner in the next street. But when such a journey involves a drive or a ride of some miles into the country in midwinter, with six inches of snow on the ground, or a cold sleet blowing in your face, then, I think, country medical practice is rather trying.

However, one gets, in a way, used to it, or puts up with it; and, in the long run, what with the benefits of fresh air, an occasional turn with the hounds, and a periodical walk through the Squire's coverts with a gun under one's arm, we find that country practice has as many 'ups' as 'downs,' or, at least, one's health does not seem much the worse for the 'downs.'

So much, on this occasion, for the human, but my object in writing is with regard to the equine animal. The country doctor's horse has sometimes, or often, a rather bad time—not so much from the absolute hard work, as from the standing about in cold damp weather. In my part of the country many of my journeys lead me to out-of-the-way cottages, where the roads are very bad, and where there is no chance of 'putting up' even when attending a

confinement, and so the poor nag has to stand outside for an 'unconscionable' time. We wrap up his body, but his legs are exposed to the wet and cold, sometimes standing in thick snow and mud. The same thing happens, of course, by day as well as by night, and it is perhaps surprising to some that more harm does not result.

Years ago my horses used to suffer considerably. Swollen legs were a frequent trouble, and 'mud fever' was a periodical ailment which happened in my stable. But we have changed all that, and now I seldom have any such trouble, or such expense.

Swollen legs have been attributed to a variety of causes, to weakness, to plethora, to wrong feeding, to overwork, or to want of work, and possibly all these causes may sometimes have to be considered; but I am referring to swollen legs when the horse is in otherwise good health, and is neither under- nor over-worked, or, at least, only a little of the latter.

The remedy is comparatively simple, when we know it, although it is not so simple to persuade the ordinary stableman to carry it out. Coachmen and grooms are, to my thinking, the most prejudiced and obstinate class of men we have to deal with, and there is nothing but absolute insistence that will make them carry out our instructions, when those instructions are contrary to the stableman's own ideas of what is correct.

Thousands of owners of horses know the truth of what I am about to say, but I doubt if they all carry their knowledge into practical effect; or, at least, I doubt if their horses' legs are treated as they wish.

The remedy consists in never washing the legs after a long journey. Directly the horse comes in the hoofs should be washed out, the legs rubbed dry and flannel bandages applied, or the bandages may be put on without rubbing the legs absolutely dry—over the wet and mud. In the morning the dry dust can easily be brushed out, or, if the stableman likes, the legs can then be washed, and in safety, but after washing they should be well dried.

I have now had this plan carried out for the last twenty-five years, both with hunters and carriage horses, and I have never, during that time, had a case of 'mud-fever,' and never any serious cases of swollen legs.

For the latter, when they do happen, an occasional application of a stimulating liniment will be found useful.

If by accident mud fever should occur, the following treatment will be found efficacious. Bathe the legs several times a day with decoction of bran, and after the inflammatory symptoms have partly subsided apply the following liniment:

Liq. plumbi acetatis ʒij
Ol. olivæ Oss.
M. Ft. lin.

When legs become permanently weak from strains and overwork, then the question of blistering, or firing, or both, has to be considered, and this subject I propose to discuss in another letter.

¹ *Therapeutic Gazette*, Philadelphia, Dec. 15, 1894.

Health and Holiday Resorts

NEWQUAY

THIS place is well worth attention, as it is not so much known as a health and holiday resort as, we think, it deserves.

Newquay lies nestled under the shelter of a grand old headland called Towan Head. The town is situated on the north coast of Cornwall, fifteen miles north of the city of Truro, eight miles west from St. Columb Major, and about 270 miles from London. The population at the last census was under two thousand.

Our attention was called to Newquay some years ago by a busy member of our profession, who speaks very highly of its character. He states that it is well situated on high cliffs, the Atlantic stretching before it to the north. It is never too hot in summer, nor too cold in winter. The air is dry, and although there is plenty of wind, it is not cold, at least in the summer, and the inhabitants say the same of the winter. The coast is full of caves piercing the huge cliffs. There is plenty of accommodation in the shape of hotels and lodging-houses, and one new huge hotel. The provisions are good and reasonable.

The former inaccessibility of Newquay interfered with its being as well recognised as other health resorts; but, since the railway has been made, it is yearly becoming better known. One of the chief advantages of this over other seaside places in England is its remarkably equable climate. As regards the sea, being fully exposed to the Atlantic it is seldom that an absolute calm is experienced. The hills behind the town form a complete shelter from the full force of the southerly and sou'-westerly gales; so that the air, although plentiful and bracing, is not objectionable.

The temperature of the sea on this coast is higher and more uniform throughout the year than in any other part of Great Britain, the average ranging from 47 degrees in March to 62 degrees in August, while the east coast of England varies from 40 to 60 in the same months.

This difference in the temperature of the sea upon the air is very marked, the mean temperature in the shade only ranging from 44 degrees in winter, and 62 in summer, as contrasted with 37 and 63 degrees in the same seasons in the English midland counties. There is a marked absence of extremes in temperature. In the shade in the summer it rarely exceeds 70

degrees, while in winter *severe frosts are quite unknown*, a fact to the truth of which the delicate plants and shrubs which grow out of doors all the year round will amply testify. Myrtles bloom during the winter, geraniums and tender greenhouse plants live outside throughout the year; and, in March, the cliffs all along the beach are covered with violets and primroses, while roses are never out of season.

This is quite different from the condition of the country a few miles inland; and, not uncommonly, when frost and snow are found at the latter, Newquay itself is genially warm, simulating the character of the Italian Riviera.

Rainfall.—This is much smaller than the average for Cornwall, so that it is said that, although the west of England may be exceptionally wet, yet this does not apply to Newquay itself. According to Dr. Tripe ('Proceedings of the Royal Meteorological Society,' vol. iv.), the air of this part of England during the winter is decidedly drier than that of inland districts with a smaller rainfall. The amount of bright sunshine in this part of England is larger all the year round, but is especially so during the winter months.

Sanitation.—The sanitary condition of the town is very good. The present drainage system was carried out some few years ago at considerable outlay, upon a plan approved by the Local Government Board.

Water supply.—Water is brought from the moors some six miles away, and is of excellent quality. The storage reservoirs are situated at Quintrell Downs and Mount Wise.

In the seven years 1881–1887 the average death-rate for a thousand population was only 13·9; zymotic diseases, which included six from whooping-cough, amounted to only 14.

The climatic conditions of Newquay go far to explain its popularity, but it possesses others of scarcely less attractiveness. The splendid headland stretching out for at least a mile to seaward forms a magnificent natural pier, the like of which does not exist elsewhere. From its extremity may often be witnessed most gorgeous sunsets, while at its extreme western point there is generally a magnificent display of wave power as the long Atlantic rollers break upon its rocks. The combination of rock and cliff scenery, caverns and beaches, which Newquay and its immediate neighbourhood affords, makes it altogether unrivalled, at least amongst the watering places of the West of England. It is more like Kynance or the Land's End, but is supposed to be better.

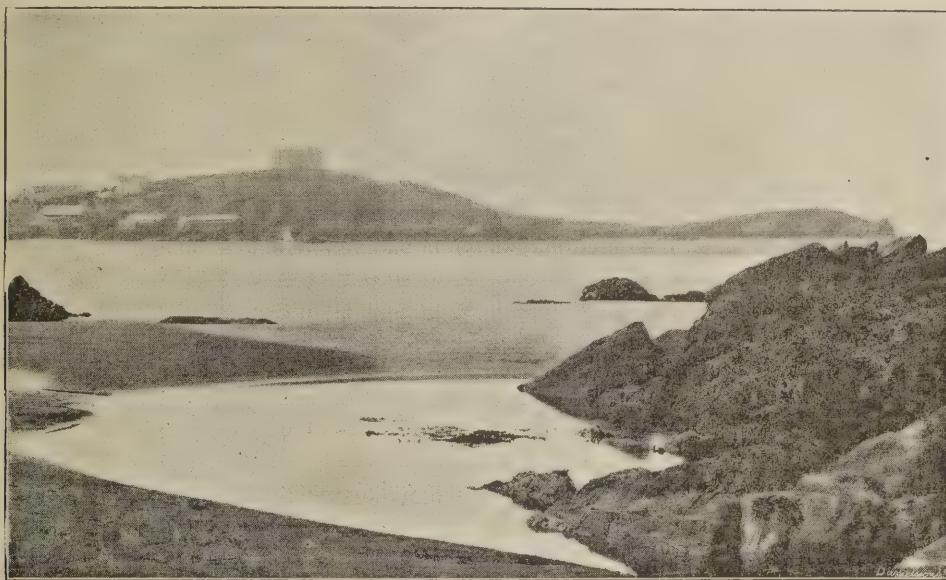
Bathing.—The beaches are safe, flat, and smooth,

and afford excellent ground for bathing. The surface is so firm that tennis courts can be marked out upon them. The bathing is, therefore, particularly good and very safe, no fatal accident having occurred on the town beaches for many years. There are bathing machines, but many people use the caves in the rocks, which afford sufficient privacy. One portion of the beach is reserved between 8 A.M. and 9 for the use of ladies, but elsewhere the sands are entirely free for gentlemen the whole day long. For young children there are splendid pools in different parts of the beach where they can bathe with perfect safety.

by coach and omnibus to Victoria, Wadebridge, Padstow, &c., to Newquay. Another route is by rail to Bideford, and by coach to Bude, Camelford, &c., and there is another route by the Holsworthy line, which reduces the coach journey to about ten miles.

In addition to personal experience we are indebted for help in writing this article to a Guide, written by R. H. Curtis, F. R. Met. Society, published by F. Warren, Photographer and Stationer, Newquay.

Hotels.—The *Atlantic* is the largest and the most modern; there is also the Great Western Hotel and some good Boarding Houses.



Warren, Photographer, Newquay

VIEW OF NEWQUAY.

Boating and Fishing.—There are plenty of boats and good fishing, but the sea being seldom very calm is not particularly suitable for the former.

The **Golf, Cricket, and Tennis Clubs** are well supported.

Routes to Newquay.—The direct railway service from London takes about eight hours, but those who have sufficient time and are fond of coaching and coasting trips may avail themselves of the arrangements made by the London and South Western Railway in conjunction with the North Cornwall Coach Company, who together offer 80 miles of coaching through the romantic scenery of the North Coast of Devon and Cornwall, in direct communication with through fast trains.

During this coach drive there is an almost uninterrupted sea view through the entire journey. The visitor goes by rail from either Plymouth or Exeter to Launceston *viâ* Lidford Junction, and thence

Reviews

A Manual of Medical Treatment; or, Clinical Therapeutics.

By I. BURNEY YEO, M.D., F.R.C.P., Professor of Clinical Therapeutics in King's College, London, and Physician to King's College Hospital. With illustrations. 3rd edition, 2 vols., price 21s. (Cassell & Co.)

THIS work was first published in the summer of 1893, and its success has been so great that the third edition is now issued. This edition does not affect to contain any great alteration from the first, but the nature of its contents is so essentially clinical that we propose to deal with it rather extensively.

A very important and clinically valuable feature is the selection of formulæ published, for the most part by well-known physicians, which are added to most of the chapters for the purpose of giving completeness and breadth of view to the subject.

As an example of the style of this work we may take the very first subject described—**Simple catarrhal stomatitis** or catarrh of the mouth. Twelve lines describe the condition, twelve more deal with the causes and associations, and about twenty-four lines are given to treatment.

The following prescription is suggested as a good formula for a mouth wash:—

R Boracis	120 grains
Sodii bicarbonat.	40 grains
Tinct. eucalypti	1 oz.
Glycerini	$\frac{1}{2}$ oz.
Aquæ	ad 8 oz.
M. F. lotio.	

We next turn to chapter xii., which deals with **diseases of the intestine** and the treatment of **intestinal obstruction**. The various causes which may lead to obstruction are very clearly and simply detailed. (1) Accumulation within. (2) Compression or constriction arising external to the gut. (3) Stricture. (4) Strangulation or Incarceration. (5) Positional lesions of the intestinal walls, such as intussusception, or twisting. The author goes on to deal with gall-stones, peritonitis, and other conditions—all in a simple manner and absolutely without padding.

The influence of opium to relieve pain and spasm is referred to, and remarks are made as to some disadvantages from this drug. The author states that the same objections do not apply to belladonna, which may be given with or without opium, yet opium is a sheet anchor, although, in nine cases out of ten of acute obstruction ending fatally, the opium simply contributes to euthanasia.

Dr. Yeo quotes Hunter McGuire, who observes: 'To carry it [opium] farther than slight narcosis and arrest of the most painful symptoms of obstruction is an abuse of the remedy.'

The usefulness of large injections of warm water, even in acute obstruction situated in the small intestine, is referred to, and 'no surgical operation should be attempted until this resource has been tried.' He recommends that the water be introduced by a siphon tube and glass funnel, the patient being placed in the knee and elbow position, with the head depressed and the buttocks raised. The injection is to be made slowly and gradually, so as to allow time for it to pass through the coils of intestine.

In this as in other cases, however, Dr. Yeo urges the importance of surgical interference, and largely quotes Treves upon this subject.

In Part II. of this volume the treatment of **cardiac hypertrophy and dilatation** is dealt with from every point

of view. With regard to cardiac tonics he states that some kind of tonic is indispensable in forms of cardiac dilatation and feebleness which occasionally follow attacks of febrile and septic maladies and also in anæmic cases. It will rarely, however, he states, be necessary to have recourse to digitalis except when there is much dyspnoea and palpitation. In such cases small doses of digitalis may be given in combination with iron, such as:

R Ferri et ammonii citratis	80 grains
Tinct. digitalis	40 minims
Spr. ammoniæ aromatis	2 drams.
Infusi calumbæ	ad 8 oz.

M. F. mist. Two tablespoonfuls twice a day, an hour after meals.

He prefers, in less serious forms, to employ strophanthus, or strychnine, or nux vomica with coca, in combination with iron, quinine, or arsenic, as may seem desirable.

R Quinina sulph.	16 grains
Tinct. nucis vomicæ	2 drams
(or Tinct. strophanthi)	24 minims
Ext. cocæ fluid.	4 drams
Spr. chloroformi	80 minims
Aquæ	ad 8 oz.

M. F. mist. Two tablespoonfuls twice a day, an hour before food.

Or

R Ferri et quinina citratis	80 grains
Liq. strychninae	32 minims
Spr. chloroformi	80 minims
Aquæ	8 oz.

M. F. mist. Two tablespoonfuls twice a day, two hours after food.

Or

R Ferri arseniatis	4 grains
Quinina valerianatis	āā 24 grains
Ext. nucis vomicæ	

M. et divide in pil. 24. One three times a day after food.

In purely anæmic cases iron and nux vomica, together with some aperient to insure a regular action of the bowels, will be most serviceable, as:

R Ferri sulphatis exsic.	36 grains
Saponis	18 grains
Pulv. nucis vomicæ	24 grains
Aloes extracti	12 grains

M. et divide in pil. 24. One or two (as necessary) twice daily, after lunch and dinner.

In cases of somewhat acute dilatation, however induced, the hypodermic injection of strychnine in doses of $\frac{1}{60}$ to $\frac{1}{20}$ of a grain will sometimes be attended with remarkably good results.

These extracts give a good idea of the nature of this work. It is well printed, and, as one might expect from so generally accomplished an author, it is well written and very much to the point. There are a few illustrations, some of apparatus, such as that for rectal feeding and a stomach siphon, and some of tapeworms, the author's Respirator, and Potain's Apparatus for Thoracentesis.

Enlargement of the Prostate: its Treatment and Radical Cure. By C. W. MANSELL MOULLIN, M.A., M.D. Oxon., F.R.C.S., Surgeon to and Lecturer on Physiology at the London Hospital; late Radcliffe's Travelling Fellow of Pembroke College, Oxford; and Hunterian Professor at the Royal College of Surgeons. Pages 176, royal 8vo, price 6s. 1894. (London: H. K. Lewis.)

It is two years since Mr. Mansell Moullin, in the Hunterian lectures delivered by him at the Royal College of Surgeons, discussed the subject of the enlargement of the prostate gland, referring especially to operation with a view to permanent cure. Since then, he considers, much has been accomplished, new methods have been devised, and the operation for radical cure has been placed on a sounder basis.

The work before us describes, in the first place, the normal structure and function of the prostate; then the enlarged prostate, and the analogy between fibroid tumours of the uterus and enlargement of the prostate;



MEDIAN SAGITTAL SECTION THROUGH THE NECK OF THE BLADDER OF A MAN FORTY-NINE YEARS OF AGE, SHOWING THE GROWTH OF THE ADENOMA UP THE POSTERIOR WALL OF THE URETHRA INTO THE NECK OF THE BLADDER.

Seen from the inside the vesical orifice was markedly crescentic in shape, as if the median lobe were projecting forwards into it.

the connection with general atheroma and enlargement; the effects of prostatic enlargement upon the bladder and kidneys; the symptoms; the diagnosis; and the general

treatment of the enlargement of this gland; and, finally, the radical treatment by operation.

We give a specimen of the illustrations in this volume, and at once proceed to deal with chap. xi., on 'Castration in enlargement of the prostate' (page 154).

It has now been proved conclusively that the removal of the testes is followed in a large proportion of cases, if not in all, by complete and rapid absorption of the enlarged gland.

When the erroneous theory that the gland was in some way connected with micturition was swept away, and it was found that it was to be classed with the sexual organs, it was realised that removal of the testes would influence the condition of the prostate in the same way that the removal of the ovaries influences fibroid tumours of the uterus.

Mr. Mansell Moullin refers to papers written in 1893, one by Professor White, of Philadelphia, and one by Professor Ramm, of Christiania, in both of which the same argument was upheld. The author refers to Hunter, and also Owen, as having long since proved that (1) removal of the testes in the young prevents the development of the prostate; (2) that a similar operation in the adult causes it to atrophy, and that (3) in those animals in which the development of the sexual organs varies with the time of the year, the prostate presents differences quite as striking as those of the testes.

Cases are recorded in which, castration having been performed for some other condition, or simply for the enlargement of the prostate, the symptoms of the enlargement of the latter organ disappeared. The ages were as follows: 65, 73, 67½, 69, 81, and the others were old people. There were nine in all. Various objections to this operation are carefully considered and discussed.

It is far too early to base any definite opinion as regards the ultimate value of this operation. The comparatively few cases recorded are certainly very encouraging; but it is obvious that until more experience has been obtained we cannot consider this operation as firmly established.

Uric Acid as a Factor in the Causation of Disease: a Contribution to the Pathology of high Arterial Tension, Headache, Epilepsy, Mental Depression, Gout, Rheumatism, Diabetes, Bright's Disease, and other Disorders. By ALEXANDER HAIG, M.A., M.D. Oxon., F.R.C.P. Physician to the Metropolitan Hospital for Children and Women; late Casualty Physician to St. Bartholomew's Hospital. 2nd edition, price 10s. 6d. 1894. (J. & A. Churchill.)

Before recording our observations upon this work, we would especially draw attention to remarks in the author's preface to his first edition in which he states that he issues his book 'certainly not with any feeling that the matter is ripe for final judgment.' Again, in chapter i. under the history of his subject: 'If even half of my deductions are effectually substantiated, a very large portion of the field of medicine will be modified thereby.'

In the preface of the second edition he states that since the appearance of the first, the subject has made great strides; but he makes no statement to contradict the opinions above quoted.

We point out the above views of the author because, highly as we esteem his work as a matter of scientific research, we are about to criticise adversely the general practical application which he would have us adopt as the outcome of that research.

We are not going to attempt, in this case, to give a full analytical review of the work before us. All those interested in the matter ought to read Dr. Haig's writings for themselves. They contain a large amount of patient research, and, whatever we may think of the deductions which he draws from them, they cannot but, in the long run, have great value.

His views and his experiments originated from his own sufferings from severe headaches, and, having tried a great variety of ordinary remedies, he found that he was completely cured by omitting from his diet all butcher's meat.

'I now soon found out that in altering the uric acid I could alter the symptoms related to it; that when I produced an increased excretion with alkali, I produced the headache, mental depression,' &c.

He considers that the treatment of uræmia is the treatment of high arterial tension, together with more or less œdema of the membranes, and an excess of cerebro-spinal fluid caused by the high tension.

It may be necessary to do something more, however, besides modifying diet to remove œdema, and it seems probable that venesection would be the most likely thing to succeed.

In a recent article in the 'British Medical Journal' (December 8, 1894), Dr. Haig deals with the direct introduction of uric acid into the body, and its bearing upon the prevention and treatment of disease.

Experimenters who have injected uric acid into the blood have, he states, paid no attention to its solubility, and have concluded, because it produced no symptoms, that uric acid in solution in the blood is not toxic.

He believes that the truth is that the uric acid produced no symptoms because it remained in the blood only a few seconds. Speaking generally, the solubility of uric acid in the blood is favoured by everything that increases the alkalinity of the blood and hindered by everything that diminishes the alkalinity of the blood; and uric acid accumulates in the body because it is insoluble, while the soluble urea is practically excreted just as it is formed.

In giving caffeine for the cure of uric-acid headache, no doubt, it may cure the headache—so would a few grains of

uric acid itself—but they cure it by increasing the store of uric acid in the body, and this, if persisted in, will bring disaster at no distant date. It is of the utmost importance never to introduce into the body a single grain of uric acid that can be left outside it, for not only will it help to form a store in the body, but may also prevent the excretion of some of the uric acid which is already there.

We feel that this is a very incomplete description of the many points this author urges in his book, but it must suffice. We think it probable that Dr. Haig is one of those exceptional human beings whose individual peculiarities of constitution necessitate extremely low diet. We will not attempt to explain how this may be, but we have certainly met with such instances. The history of Cornaro is a case in point, he having regained health after almost a lifetime of misery by reducing his diet to an amount which would starve any ordinary mortal.

Many physicians of the present day find that, in a large majority of the patients who come before them, the kind of treatment advocated by Dr. Haig does not succeed. Their practice does not allow them to look upon uric acid as the cause of the many diseases which Dr. Haig attributes to it. Some of them meet with cases which have failed under the austere treatment advocated by the author of this work; and they, or at least some of them, are inclined to think that a more generous diet is necessary in the majority of cases.

Whichever opinion may prove to be correct, there can be no doubt that Dr. Haig's work is one of great value, and that his labours are of a highly scientific character.

From our own point of view of the subject we would suggest that probably Dr. Haig's plan of treatment would be most applicable to the acute forms of the disease, and that of his opponents to the intervening periods.

An Altar of Earth. By THYMOL MONK. Crown 8vo, 2s. 6d. 1894. The Pioneer Series. (William Heinemann.)

The author of this novel is a nurse whom the reviewer knows to be a conscientious, energetic, and reliable worker in the sick-room.

The plot of this volume it is not in our province to discuss, but we can compliment the author upon adopting a form of recreation for which her abilities seem well adapted.

For proposed contents of the next issue, see p. xvii.

For tables of Metric System, Thermometric Scales, &c., see p. xix.

CLINICAL SKETCHES

MARCH 1895

Medical Overwork



WHILE the death of Sir Andrew Clark is fresh in our memories we are called upon to mourn the loss of Mr. Hulke, who has also paid the penalty of attempting to do work which he ought to have left to younger hands.

The world takes note of two such men because of their eminent position, but they are after all but typical examples of a large number of members of the medical profession who fall victims to overwork and its resultant worry.

Every year seems to increase the strain and toil necessary to obtain position or even existence in the world, and doubtless there are many instances in every class, in every profession, and in every business, of men who break down in health, and to whom death comes prematurely, as a consequence of their excess of zeal, or of the necessities of their position.

There is, however, this great difference between the general public and our profession, that whereas the former can resort to their medical advisers and are thus often rescued from a fatal result, medical men themselves are slow to seek the help of their fellow workers, and even when advised are apt to neglect the kindly warning.

Hard work and overwork are inevitable to the many, but such men as the late Presidents of the Royal College of Physicians and the Royal College of Surgeons might surely lessen to some extent their arduous occupations, thus giving opportunities to younger men, while maintaining their own usefulness as consultants, with a higher grade of fees.

It can hardly be desirable that the active services of the members of the staffs of our hospitals should be continued when they have passed the age of sixty; the younger members should take the more active work, being promoted to full surgery earlier—say, after being five years assistant-surgeons. But under any circumstances it must be detrimental to all concerned when the senior surgeon, being past the age of sixty, is allowed to be summoned to attend a case in the middle of the night.

NOTES BY THE EDITOR

I have received many letters of congratulation upon the appearance of the first two numbers of 'Clinical Sketches,' and these I much appreciate. I also greatly value the kind notices which have been so generously given by several of the existing Medical Journals, such complimentary expressions being extremely gratifying and encouraging.

In the endeavour to make this publication useful to busy men, concentration of matter and plainness of expression are most desirable, and I have at present been fortunate in obtaining Original Papers which are thoroughly in accord with these ideas.

We have heard much of late about a universal language for medical men, but I doubt its practicability. There exists, however, already a universal method of expression, and that is drawing. Not only do drawings convey a given subject to every nationality, but they explain it in a much quicker and more effective way than letterpress alone.

Mr. Pridgin Teale has always been an advocate for this means of recording cases, and he urges in the paper which appears in this number, that elaborate drawings are neither necessary nor desirable as a rule.

To exemplify this point Mr. Teale shows the rough sketches just as they have been jotted down in his case books, and I think it will be conceded that he quite proves his point. It would be well if students were encouraged to record cases in this way, for even when they are not very able as draughtsmen they may soon attain sufficient facility to draw what is necessary for the purpose.

To make a commencement of encouraging students in this matter, I now offer a prize for competition among unqualified students, the conditions of which are described on p. xvii of the advertisement sheets.

It was intended, as announced in the February issue, to give a copy of the engraving by Cornillet of one of Rembrandt's masterpieces, 'The Anatomical Demonstration,' but the sad and sudden death of Mr. Hulke has induced me to substitute for that picture a portrait of this surgeon.

We are fortunate in having received from him a contribution to this Journal. It had already been arranged that his paper should appear in this issue. The proofs were in the hands of Mr. Hulke at the time of his death, and I therefore publish it without such corrections as he may have wished to make.

Those who read this paper, as well as all who are acquainted with his habits, will know, however, that no material corrections were required. Mr. Hulke always wrote with that scrupulous carefulness which characterised him in all his work, and the paper I have the pleasure of publishing to-day is an excellent example of the English language, as well as a masterpiece of lucidity in description.

The character of the man is shown by the act which cost him his life. His devotion to duty led him to prefer being called up in the night of this Arctic winter to operate at the hospital upon a case of strangulated hernia, rather than leave the work to his younger colleagues—colleagues whom he knew to be most able men, and who were ever ready to help him if he wished.

Mr. Hulke had prepared the Hunterian Oration for February 14, but was too ill to deliver it. It was therefore read by Mr. Bryant, and is reported in the 'Lancet' and 'British Medical Journal' for February 23.

Since writing the above, two more London surgeons have passed away, one of them, however, being far better known than the other.

On March 4, Sir William Scovell Savory died at his residence in Brook Street, at the age of 69, and I propose in the next issue to give a biographical sketch of his life, accompanied by a portrait. He is succeeded by his son, the Rev. Borradaile Savory, rector of St. Bartholomew the Great, Smithfield.

I have also to record the death, on Monday, February 25, of Mr. Edward John Chance, who had quite outlived his time, dying at the advanced age of 87. Mr. Chance was a very remarkable man, possessing qualities which would have enabled him to attain to a very high position in his profession had he cared to use them. He preferred, however, to labour incessantly.

santly among his patients at the Metropolitan and at the City Orthopædic Hospitals, especially at the latter. His correctness of eye and his aptitude as a mechanic, combined with his thorough knowledge of anatomy, enabled him to attain great success in correcting orthopædic deformities.

His skill was recognised and appreciated by his colleagues, and he is greatly mourned by the few relations and connections who survive him.

The severe weather we have just passed through has brought home to us very plainly the necessity for various reforms in sanitary arrangements, and especially as regards water supply. In London, and in many other large towns, the defects are very serious.

A large proportion of the inhabitants have been cut off from their water supply for many weeks by the frost. As a rule, the interruption has occurred in the pipes leading from the main to the house, the pipes not being laid sufficiently deep. In some districts near London the water in the main pipes has also been frozen in consequence of their superficial position.

We pay heavily enough for our water supply without having to suffer as regards convenience and health, and the Companies ought to be made to carry out their part of the contract to give us a constant supply, and to protect these pipes and prevent their contents from freezing.

The bearing of this subject upon the purification of drinking-water I propose to deal with in a forthcoming article.

It is satisfactory to find that some reforms are likely to take place in respect to coroners' inquests. These changes involve the appointment of medical investigators to inquire into all uncertified deaths, and to make post-mortem examinations, rendering unnecessary the viewing of the body by the jury, and probably reducing the number of inquests to half what they are at present.

As pointed out by Dr. Collins, when the deputation upon this subject came before the Lord Chancellor, the proposed reforms would give far greater safety to the public than exist under the present system.

The Lord Chancellor stated that he was very much in favour of these reforms, many of which he had himself suggested twenty years ago.

Original Papers

A CASE OF CANCER OF THE ASCENDING COLON IN WHICH THE SUPERVENTION OF BLOCKAGE OF THE SIGMOID FLEXURE MASKED FOR A TIME THE PRESENCE OF THE ORIGINAL DISORDER

By J. W. HULKE, F.R.S.

President of the Royal College of Surgeons, and Surgeon to the Middlesex Hospital.

AN engineer, aged 55 years, abstemious, of active habits, tall, well formed and muscular, an athlete and remarkable pedestrian, whose lines of work occupied him much in the open air, whilst apparently in sound health, in January 1888 was seized with severe pain in the hepatic region, with vomiting and constipation.

An eminent London physician whom he consulted considered these symptoms to indicate the impaction of a gall-stone in the cystic duct. After a few days the symptoms abated so much that he was able to return from London to his home in Edinburgh. Having arrived there and still suffering from frequent attacks of colic-like pain attended with flatulent distension of the belly, he placed himself under the care of his family doctor, who regarded his disorder as 'atonic dyspepsia,' and prescribed gentle laxatives, charcoal biscuits, and bismuth lozenges.

This course of treatment was perseveringly continued until the following June, when, his health having greatly declined, he again came to London, chiefly for the purpose of obtaining additional medical advice. The journey greatly fatigued him, and next day, when I saw him, he was still extremely exhausted. He now looked very haggard, he had greatly lost flesh, and his hands were very thin and bloodless. He was dejected, his natural habit of mind having been buoyant and sunny. He had, he said, taken very little food for several days past, not because of an actual repugnance to it, but because eating was always followed by colic.

Physical condition.—His belly was now immensely distended, very tympanitic and hard. It was most resonant centrally, in front, and there percussion induced very apparent peristaltic writhing of the small intestine. It was somewhat less resonant peripherally in the circuit of the colon, and least so over the course of the descending colon, and in the position of the sigmoid flexure.

Owing to the extreme tightness of the abdominal parietes, very little could be ascertained by palpation, and nowhere was great resistance suggestive of a solid mass. The rectum—its lower part—was empty. Two enemata, each of two pints of soap-water, returned without faecal stain. A long tube could not be passed further than a distance of eight inches from the anus. The patient mentioned that two days previously an enema had acted slightly, also that the preceding day whilst walking much flatus had escaped from the anus, and that some flatus had passed in the morning of the day on which I saw him.

Diagnosis.—The observed circumstances, together with the account of his illness given by the patient, unmistakably pointed to a mechanical obstruction of the bowel.

Where was this, and what was its nature?

The ascertained distension of the ascending transverse and descending colon negatived its being seated in the small intestine, and the exclusion of this part of the intestinal canal was corroborated by the slowly progressive course of the disorder. The seat of the obstruction was, therefore, with a high degree of probability referred to the lower part of the sigmoid flexure of the colon or upper part of the rectum, into which it will be remembered that the enema-tube could not be made to enter. With respect to its nature, the probable occurrence of the obstruction in that part of the colon in which cancer is relatively frequent, the patient's age, his great emaciation, much more than that loss of flesh which might fairly be attributed to his recent inability to take food, the long duration of the symptoms of intestinal disorder—a period of several months—all concurred to give a high degree of probability to the conjecture that the obstruction might be caused by a malignant tumour.

Operation indicated.—In his then pressing circumstances colotomy was unhesitatingly advised, and that instantly.

This advice was accepted, but a delay of two days was occasioned by business and domestic arrangements. My intention was to open the descending colon in the loin, but when under the influence of the anæsthetic the muscles were relaxed, and he was placed on his right side in position for that operation, the distension of the left loin and its greater dullness appeared somewhat less than before when he was lying on his back. This casting a slight doubt on the correctness of our location of the seat of the obstruction, the ascending colon was chosen.

Operation performed.—The deeper structures of the

abdominal wall were so œdematous and so matted together that severally they were not readily recognised. The wall of the distended colon was thick, but its coats were so soft and lacerable that, owing to this and the depth of the wound, the gut could only imperfectly be brought up to the surface, and the margin of the opening in it be sutured to the lips of the tegumental incision; again and again the sutures tore out.

On opening the colon the rush of liquid fæces was so great that soiling of the wound could not be prevented. Two ordinary washhand-basins were each nearly filled with a turbid liquid of a peculiar slaty-grey colour, quite unlike that of the fæces ordinarily met with in such instances of obstruction. During their flow an attempt was made to neutralise contamination of the surface of the wound by irrigating these with a wash of dilute sulphurous acid. As an aseptic state was manifestly unattainable, the margins of the wound were not closed, but the whole length was left open. Troublesome vomiting of liquid having a faecal smell and character embarrassed the administration of the anæsthetic. The opportunity was taken to explore with the finger the interior of the colon, and it was thought that some thickening was perceptible in its walls, projecting slightly into its lumen near the hepatic flexure.

Progress of case.—During the next twenty-four hours the faecal discharges were so profuse as to necessitate frequent change of the dressings. The belly quickly became flat and soft, and its parietes were very flaccid. The patient was quite free from pain; vomiting, before so harassing, did not recur. He took freely milk to which a little whisky had been added. On the following morning (June 23) his strength was plainly declining, his tongue had become dry and brown. The wound was sloughy. Through the night he had taken less nourishment. Brandy (5ij) was now ordered to be given every two hours. On June 24 he had rallied slightly, and his general condition appeared a little improved. There was still a copious escape of faecal liquid through the lumbar wound. The sutures, which at two points only had secured the colon to the skin, had torn out, and the gut had receded from the surface, so that no part of it was then visible.

On the day after (June 25) the escaping fæces, previously grey, were deeply bile-stained. The progress during the ensuing three weeks may be thus summarised. The sloughs exfoliated, the wound granulated and contracted, and the patient's strength

greatly improved. The occasional passage of flatus per anum induced on July 17 a trial of a large soap-water enema through the natural opening. This brought away small pieces of an indurated, mortar-like, greyish substance, and the enema being repeated dislodged large masses of this concretion. A careful examination of it proved the absence of a gall-stone, the arrest of which in the cystic duct had been in the preceding January conceived to be the cause of his illness. Later in the same day (July 17) large formed cylinders of bile-stained fæces were voided through the anus, proving the restored perviousness of the sigmoid and rectum. From this time defecation occurred naturally. Upon this the lumbar wound quickly closed.

Immediate results.—The patient's general condition now improved so much that on August 1 he was able to return to Scotland. He reached his home little fatigued. During several weeks he continued to improve, but in the beginning of November his convalescence was interrupted by a feverish attack. Coincidentally with this the wound in the loin re-opened and gave issue to a large quantity of a nearly colourless, thin, watery fluid. This flow persisted during several days, and at one time gave rise to the conjecture that the pelvis of the kidney or the ureter had been opened by ulceration; but the fluid had not a urinous odour, its slight tinge and smell suggested rather a trace of fæces in it, and as its escape was not attended with any decrease in the quantity of urine voided per penem, it was evident that a renal source was untenable.

During this time he had pain in the course of the ascending colon, and a swelling was detected there suggestive of a blockage of the gut. These symptoms subsided after taking a dose of castor-oil and laudanum. Towards the end of the same month (November) he went to Eastbourne. There he did not benefit by the change of air and scene, but rather declined, being much troubled by 'indigestion, colic, and constipation.' On December 14 he returned to London having manifestly lost ground.

Subsequent results.—In the following January (1889) obstinate diarrhœa set in, the stools were very fetid, and then a firm, apparently solid lump was detected in the course of the ascending colon near the hepatic flexure. The occurrence of this lump in the situation where, at the time of the colotomy, some unnatural thickening of the bowel was thought to have been ascertained, the patient's loss of weight and strength, and the circumstance,

now positively ascertained, that his elder brother had died of 'cancer of the bowel with white knots in the liver,' now left no room for doubting the malignancy and seat of the original disorder. He lingered until March 2.

At the **necropsy** the ascending colon was found to be very intimately adherent to the capsule of the kidney—this organ was rather lower in the loin than usual—and here and upwards to the hepatic flexure the mucous membrane of the colon was extensively destroyed by ulceration, the other coats of this part of the gut being greatly thickened by cancerous infiltration. The lumen of the tube was but little encroached on. The rest of the intestinal canal was bloodless, and its coats were thin and translucent as occurs in starvation. The sigmoid flexure was greatly dilated; its calibre greatly exceeded that of the descending colon and rectum. The gall-bladder was empty and contracted.

Read by the light thrown on them by the necropsy, the sequence of events would seem to have been: firstly, cancer of the upper part of the ascending colon—to this there was an hereditary proclivity—occasioning symptoms which, at their onset, were mistaken for those of biliary colic, and later were regarded as indicating 'atonic dyspepsia;' secondly, the supervention of obstruction of the sigmoid.

Artificial concretion.—This obstruction appears to have been occasioned by sluggishness of the bowels leading to the slow accumulation of fæces in this loop of the canal, and these together with the large quantities of charcoal and bismuth taken during many weeks for the 'dyspepsia,' and becoming inspissated and compacted, formed a concretionary plug which increased until, in time, it finally blocked the lumen of the sigmoid. The supervention of this lower block, with its attendant urgent symptoms, masked for a time the higher primary disorder—the cancer of the hepatic flexure.

The quick closure of the colotomy wound in July after the restoration of the perviousness of the lower part of the intestinal canal is of some interest, as having an obvious bearing on the practice of excising a part of the intestinal canal advocated by some surgeons as an invariable part of the technique of colotomy.

Conclusions.—In this case it will scarcely be doubted that the closure of the artificial opening added something to the patient's comfort; and, further, that this occurrence would have been improbable had a

portion of the intestine been removed. Here it need hardly be remarked that the condition of the gut made any such excision impracticable. The case is also an apt illustration of ill consequences that may ensue from the long use of charcoal and of bismuth in a solid form.

ON THE USE OF DIAGRAM AND ROUGH DRAWING IN THE RECORD OF SURGICAL CASES.¹

By T. PRIDGIN TEALE, M.A. Oxon., F.R.C.S., F.R.S.
Consulting Surgeon to the General Infirmary at Leeds, England.

Having been invited to contribute a paper to the volume about to be presented to Professor von Esmarch on his seventieth birthday, I was met by the question, What shall be the subject?

The most appropriate subject would perhaps have been 'A study of the influence of Esmarch's work on British Surgery.' But to do justice to such a large subject as this would demand far more time than is at my disposal. I turn, therefore, to another which specially strikes a chord of sympathy between Professor von Esmarch and myself, and is indeed the one which has brought us into literary relationship, viz. 'the use of the pencil in enforcing the teaching of the pen.' Drawing, Diagram, and Picture are a universal language, and a book which tells its tale by illustrations and relies upon them rather than upon the text, indeed which makes the text subservient and auxiliary to picture, may serve its purpose to foreigners even untranslated. Moreover it lends itself readily to translation, seeing that the main part, the picture, needs no translation, and can be reproduced from the original blocks.

Such a book is Esmarch's 'Manual of Military Surgery,' which took captive my admiration, and inspired me with the desire to become acquainted with the author.

Probably by no one to such an extent as by Esmarch has the principle of teaching every surgical detail through picture been carried. He has produced a book which can be used in the sudden emergencies of the field of battle, not only by the surgeon, but even by those less technically instructed persons on whose aid he has to rely. But it is the object of this essay to carry still further the principle of using drawing and diagram in order to economise time and

give vividness to expression. In a published book drawings and diagrams must be clear, expressive, and as far as possible artistic and such as will bear criticism. The ability to draw such illustrations is not the lot of every one. But there is a still further use of drawing which has a wide and almost universal application, and for its successful and extensive employment does not demand artistic power nor the skill of an accomplished draughtsman. It is for the employment of this particular power of expression by the pencil that I plead to-day; and I claim that those persons are few who are incapable of making such an outline diagram as shall be of value in recording the main facts of a surgical operation, and possibly prove to be of even greater value than the best verbal description. Such a diagram, inartistic though it be as a drawing, would in a rough outline clearly suggest (in black or blue colour)—

- a. the part of the body under consideration;
- b. the position of any tumour or injury, indicated perhaps by letters for special explanation; and, in red colour,
- c. the incisions; and possibly
- d. the final closing of the wound by sutures, as in amputation.

A drawing thus made, say in two minutes, can often record more than could be described in writing in five or ten, and would so save time in making the record. But this is not the only time saved. Such a diagram is probably more signally a time-saver when used as a record. Whereas a written description demands considerable thought and attention and time for its comprehension, from a diagram the mind takes in at a glance the facts of the case, and the whole story is vividly and instantly recalled.

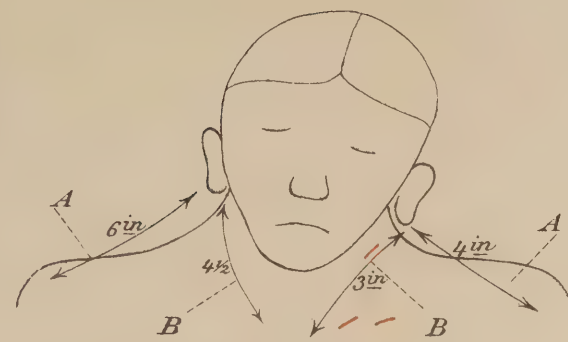
I learnt the habit of pictorial note-taking from my friend and teacher, the late Sir William Bowman, who used diagram very extensively in his notes of ophthalmic cases, especially where he would express conditions of cornea, iris, or lens. This habit grew upon me until in my hospital work I made it a point of honour to record in a diagram nearly every surgical operation. For the last twelve years at least I have kept a diagrammatic record of about three-fourths of the operations which have been done in my private practice as well as in my hospital practice. Every surgeon probably would wish he had an accurate record of the main facts of every operation which he performs. To do this by verbal description, in the midst of a busy life, soon becomes in private practice impossible. 'Mole ruit sua.' But that it becomes

¹ The paper contributed to the 'Festschrift' presented to Professor Esmarch, of Kiel, on his 70th birthday.

T. Pridgin Teale, On the use of Diagram and rough Drawing in the record of surgical cases.



Suppurating and caseating Lymphatic glands, removed by excision and scraping.
Drainage tubes in 3 places.



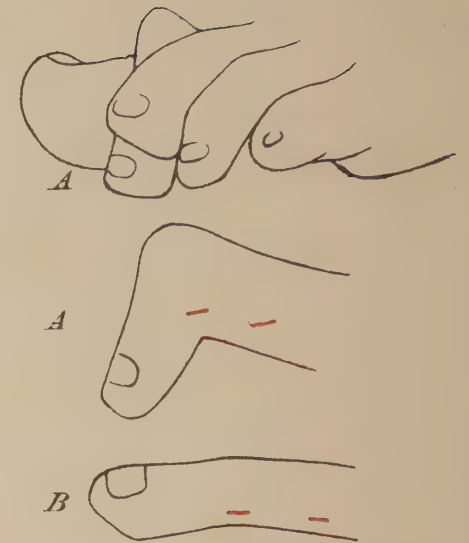
A.A. From tip of ear to tip of acromion.
B.B. From tip of ear to tip of sternum.
Division of left sterno mastoid for wry-neck.



Ovariotomy.
Both ovaries diseased - removed.



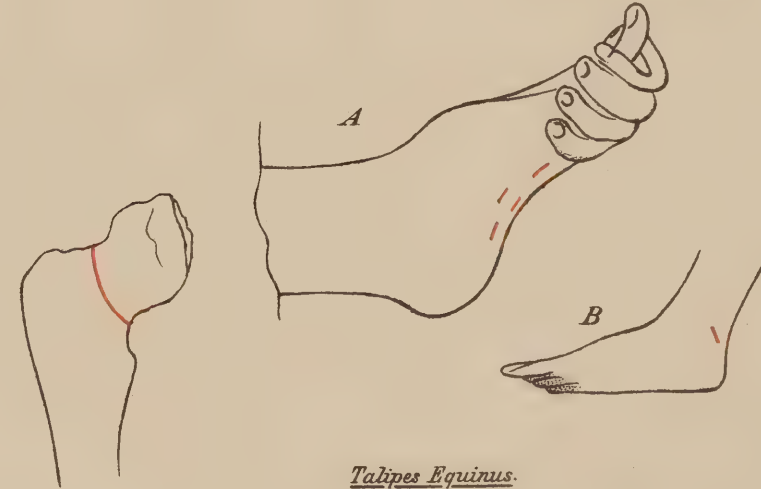
Hallux flexus. Excision of head of 1st metatarsal. A.



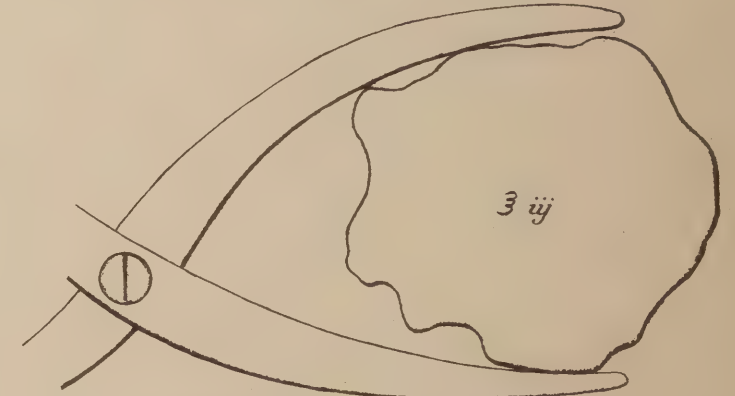
A.A. Contracted toe. Division of flexor tendon B. Result.



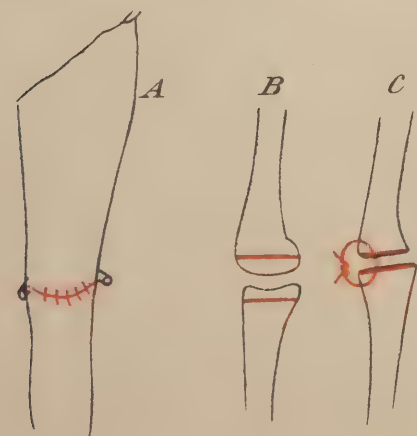
Gangrene A. Rectangular amputation of thigh
B. Stump.



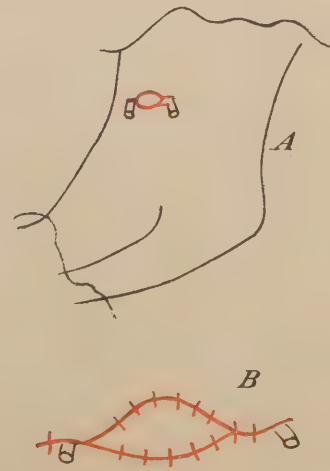
Talipes Equinus.
A. Tenotomy of plantar fascia.
B. Tenotomy of peronei.



Lithotomy. Removal of 3 ij calculus of oxalate of lime.



Excision of knee joint.
A. Incision.
B. Ends of femur and tibia sawed off.
C. Ends of bones united by wire suture.



A. Lumbar colotomy.
B. Bowel sewed to wound.



Iridectomy May 92.

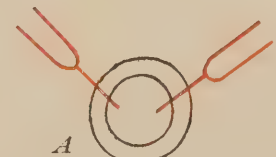


Extraction July 2nd

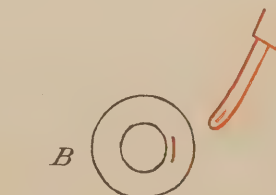


Artificial pupil Sep. 3rd

Extraction of cataract in a diabetic patient.

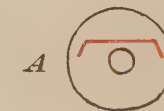


April 16th

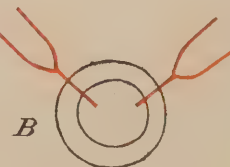


April 26th

Nuclear cataract.
A. Preliminary laceration of capsule.
B. Secondary extraction of opaque lens by suction.

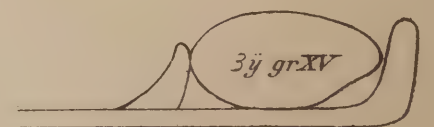


Sep. 30. '89.



June 21. '90.

A. Extraction of cataract
B. Subsequent tearing asunder of opaque capsule by two needles.



Lithotrity.
Size of stone equals the largest diameter measured by the lithotrite

possible by means of diagram my notebooks in tabular form of the last twelve years are a convincing testimony.

In concluding this essay may I in the first place lay down certain rules or propositions, and in the second place give specimen diagrams which will speak my meaning more forcibly than words?

Propositions.—1. That artistic drawing is not essential for the purpose of a diagrammatic record of a surgical case or operation.

2. That very few persons are incapable of making such a rough diagram as shall increase the value of written notes, and even in many instances prove to be an effective substitute. Here I speak from experience. It was my practice to require my 'dressers' (*externes*) to use diagrams in recording their cases. It rarely happened that any one was absolutely incapable, and many gave evidence of a power of expressive drawing of which they were before unconscious.

3. Great as is the saving of time in making the record of the case, there is a still greater saving of time and thought when the recorded case has to be referred to and read.

4. Although finished drawings and photographs are often extremely valuable as additions to the records of a case, it is an essential principle that the diagrams shall be in simple outline and shall be executed quickly—much as we make a letter in writing. It should be a modified form of rapid writing. The temptation to give finish should be resisted.

5. It is desirable to use for these diagrams one of the solid blue, black, and red inks (such as one of Wolff & Sons') in the form of a pencil.

Specimen diagrams.—The accompanying specimen diagrams have been traced from my notebooks of the last three or four years. They are given just as they were originally made, without a view to publication. The selection is made to cover a wide field of surgical work.

GENERAL PARALYSIS OF THE INSANE

(A PATIENT'S LETTER)

CONTRIBUTED BY GEORGE SAVAGE, M.D.

Lecturer on Mental Diseases, Guy's Hospital.

The accompanying letter is a very good example of the characteristic exaltation of ideas which is so often met with in general paralysis of the insane, but,

in addition, it is interesting in showing that the exaltation is not always associated with pleasurable ideas.

In the present patient there were delusions of persecution as well as hypochondriacal interpretations of feelings, which are not uncommonly met with in general paralysis. It must be remembered that there are many other states of mental disorder in which 'exaltation' occurs, but it is rare to find universal grandeur of ideas in any other disease.

The acute maniac may be boastful and aggressive, the youth with insane conceit may be self-laudatory, but he boasts within reasonable bounds, and the solitary dreamer may build up castles in the air which become real delusions: it is thus that the Asylum Queens arise; the deaf person, or the person bothered by auditory hallucinations, may become impressed with the notion that he is important, otherwise people would not take notice of him; but the general paralytic is universally grandiose, and as a rule benevolent, a rare exception to this benevolence being seen in the author of this letter, who had many grand ideas, but these were mixed with delusions of persecution.

It may be safely said that there is no form of delusion which may not occur with general paralysis of the insane.

'Bethlehem Hospital, St. George's Road, S.E.

'My dear Miss—I wrote you twice and asked you politely to return the photograph, but never received a reply from you. I hope you received my letters safely. Every word I wrote in my letters was true. I was robbed of ten component parts of my system, (not by electricity, as I stated) by a man named Willie—and 132 associates in crime, all invisible to the human race. These 132 murderers tried for 13 weeks to murder me, and were receiving hundreds and hundreds of thousands pounds by subscriptions in my name. My head was cut off my shoulders, (I was headless for 17 minutes) and my darling wife picked my head off the floor. It was afterwards replaced by a hollow model of my head, composed of india-rubber and gutta-percha covered with my own skin only. I was chloroformed 3,000 times. My chest was cut open, and my heart and lungs taken out by copper hooks, and four flagstones placed in my breast, weighing $3\frac{1}{2}$ hundred-weight, and my flesh was stitched up roughly with wire. My backbone was cut out of my body. My liver, kidneys, bowels, and bladder were afterwards drawn from my body by copper hooks by this murderer, and he and his

associates were committing forgeries on all my friends in my name, also forgeries on every member of the Royal Family in England to the amount of millions of money in my name. I lost 60 quarts of blood being drawn from my body by glass and brass syringes. Twelve insertions were made in my legs, and my veins cut, and blood drawn from them. My darling wife Jane Josephine prayed night and day for my recovery. She loves the very ground I walk upon; she was born at Tunbridge Wells, and received her education there up till 22 years of age. She is equally loving and affectionate as yourself. God Almighty answered her prayers, and chose your first true love to be the recipient of millions of miracles, the most marvellous miracles ever performed by God, since our Lord and Saviour Jesus Christ was on earth in human form. God in heaven restored me, and has made me the most beautiful model of man that ever walked on earth. He has also caused something to beat in my left breast. My legs are beautifully modelled. My weight in a state of nudity is only about 50 pounds, but this fiend—make me by illegal and unlawful persecutions as heavy as 14, 15, 16, 17, and 18 stone weight.

'The St. Bartholomew's Hospital authorities regard my case as the most extraordinary and wonderful that ever came under the notice of the Hospital Authorities. All the criminals have been arrested excepting two, who are still on the property of this Hospital, persecuting me all day and all night long. I have not had 12 hours' rest for the last week. I play the pianoforte beautifully, compose music (40 sets of waltzes) one of which to dedicate to yourself. I compose thousands of lines of poetry every day, and have every appearance of an English gentleman. Height 5 feet 9½ inches. I am simply remaining here temporarily for safety, until these two criminals are arrested. I pray to God Almighty seven times a day, and never forget my first love in my prayers. Sir — of London has interested himself on my behalf, also many other gentlemen. The Crown of England has taken my case up, and I believe I am intended to marry Princess Alice Maud, the second daughter of their Royal Highnesses the Prince and Princess of Wales. I have the same love for yourself as I always had, and if you are not yet married, if you will accept me, I willingly and with pleasure offer you my hand. I have not earned one penny piece since last December, and have not one penny piece in my pocket. All this large amount of money received is mine, and is in my name in the Bank of England,

but I cannot draw a penny until these two criminals — and — are arrested. My darling wife is coming to see me to-morrow afternoon (Sunday) between 2 and 4 o'clock. If you feel disposed to run up to London and visit me, I shall be delighted, and with all the pleasure in the world will introduce you to my last love. If you cannot come to-morrow, come on Monday and see your first love, who will receive you with open arms, love and affection, but kindly write me by return of post, and if possible send me your photograph. I will now conclude with fondest love (if you will accept it) and heaps and heaps of kisses. By a still further series of miracles I am able to have connection just the same as ever I did. I intend visiting every city in the wide world, travelling under the cognomen of J. (Enone. There never was and never will be but one "(Enone," if the world lasts for millions of years. I have every reason to believe I shall be the longest living gentleman in the world; in fact, I shall live for a thousand years. Wishing you now good morning. God shower down his blessings on your head, is the daily prayer of your first love.

'Ever your affectionate and loving

'JOHN R. (ENONE.'

'If you do not write kindly telegraph to me and oblige your Jack.'

PROPHYLAXIS IN DIPHTHERIA

The medical man who has had much experience in general practice will seldom make a mistake about the nature of a case of diphtheria when judging alone from the general appearance and character of the illness, and he is loth to consider it necessary to resort to a bacteriological investigation in order to confirm his diagnosis. That mistakes may be made, even by the most experienced, now seems certain, and as regards the determination of immunity of the patient as a conveyer of disease there can be no doubt that it is only upon such an examination that an absolute opinion can be based.

Dr. William H. Park, of New York, who was one of the doctors appointed by the New York City Board of Health to examine all cases of suspected diphtheria, reported to the board that he found the Löffler bacilli present in the throats of many of those who had come in contact with patients suffering from diphtheria, although they remained in good health. In

some of these individuals the disease subsequently developed, while some remained free themselves, but contaminated other persons with true diphtheria. He estimated that 'virulent diphtheria bacilli were present in about one per cent. of the healthy throats in New York City at the time of these examinations (May 1893 to May 1894), and most of the persons in whose throats they existed had been in direct contact with cases of diphtheria.' 'The members of a household,' writes Dr. Park, 'in which a case of diphtheria exists should be regarded as sources of danger, unless cultures from their throats show the absence of virulent diphtheria bacilli.'

Dr. H. W. Berg, Physician to the Willard Parker Hospital, New York, has written a very valuable article upon the treatment of diphtheria in the 'New York Medical Record' for January 12, 1895, and in describing the prophylactic treatment he quotes Dr. Park, and goes on to state:—

Length of life of bacilli.—As to the length of life of these bacilli after they have been discharged from the body, it is found that their virulence persists for a long time. Löffler and Park found that the true diphtheria bacillus maintained its life upon blood-serum for seven months. Roux and Yersin found that they maintain their life in dried shreds of membrane for twenty weeks. Thus the dried sputum upon clothing, toys, and the like might infect five months after the clothing had been worn by a diphtheritic patient. In my own practice two severe cases of diphtheria had been treated late in spring, and on recovery the patients were sent away to the country. The sick-room was not again occupied until November; it had been in the meantime thoroughly fumigated. Two weeks after the return of the children to this room, a severe attack of membranous croup occurred in the youngest child, of which the little patient died.

A proper bacteriological examination is the most important factor in the prevention of diphtheria. . . .

Statistics.—Of 605 cases that recovered, Park and Beebe found that in 304 the diphtheria bacilli disappeared within three days after the disappearance of the exudate; in 176 cases the bacilli lasted for seven days; in 64 cases, for twelve days; in 36 cases, for fifteen days; in 12 cases, twenty-one days; in 4 cases twenty-eight days; in 4 cases, thirty-five days; and in 2 cases, sixty-three days after the disappearance of the exudate. In all of these convalescent cases the Löffler bacilli, although growing gradually less numerous and becoming more admixed with cocci,

are still virulent generally to the end. It becomes highly important as an element in prophylactic treatment to maintain the isolation of cases of true diphtheria as long as any Loeffler bacilli are found.

Personal sanitation.—Now as to the patient's friends, nurses, and physician looked upon as a source of contagion. It may be taken for granted that in everything the patient's clothes, skin, hair, fingers, mouth, &c., touch, there is a strong probability of some bacilli being caught, for the patient contaminates his own body, together with his surroundings, with pseudo-membrane and discharges, which dry on his person and surroundings and are thus taken up by others. All the more is this true because the little people whom diphtheria has chosen for its own are not old enough to be the subjects of active personal cleanliness. It follows, therefore, that those engaged in nursing the patient should be, as far as possible, isolated from other people. The physician above all others should guard himself from contamination, if not for his own sake, for that of his *clientèle* and friends. At the Willard Parker Hospital it is the custom, before entering the diphtheria wards, for the physician to envelop himself in a muslin gown with a hood over his head. This gown has been previously sterilised by baking; it is long enough to reach almost down to the heels of the shoes—these latter are covered with ordinary rubbers. Thus clothed the physician enters the hospital ward. I have made it a rule in private practice, in lieu of the gown, to have plenty of towels to facilitate the handling of the patient. His body is not touched by my bare hand without the intervention of a clean towel; whether it be the head or the face or the wrist or chest of the patient that must be handled, it should always be with the intervention of a towel. A towel should be placed upon the chair upon which the doctor sits, and another one folded upon his lap. All instruments used for examining the throat and nose should be previously and afterwards sterilised, and a solution of creolin or bichloride of mercury used to wash the hands immediately after leaving the apartment.

Isolation.—As far as the friends are concerned, the best of all precautions is isolation. That this cannot be complete in the present state of society, and in consideration of the enormous frequency of the disease, goes without saying. But the nearer we approach the ideal isolation, even with regard to mild cases of diphtheria, the less frequent will be the disease. It is not at all rare to find children suffering

from true diphtheria, without constitutional symptoms and but little angina, sent to school, where they infect healthy children. To guard against this, children and adults complaining of the slightest throat lesions should be isolated.

Not only should the room in which the patient lies be isolated from the rest of the household, but measures should be taken to keep strangers from coming in contact with the apartment in which the patient is, and also with those engaged in waiting upon him. Above all things should cases of diphtheria be carefully isolated when they occur in the tenement districts, although perfect isolation is here practically impossible. . . .

Disinfection of furniture.—A third source of infection is the fact that the furniture, utensils, clothes, and even the walls of the rooms—in fact, all the surroundings of the patient—become contaminated with discharges and sputa containing Löffler bacilli. Here the question arises, How shall all these various objects be made free from the bacteria of diphtheria? Some articles cannot be so disinfected, and such should, if possible, be destroyed. The walls should be painted, old wall-paper should be removed and replaced by new; floors scrubbed with carbonised water in a one per cent. solution, or mercuric chloride solution of 1 to 4,000. All articles such as bedding, blankets, mattresses, &c., should be subjected to dry heat at 100°C.—in other words, baked. Steam at 100° C. will destroy all bacilli, at the same time it will also probably destroy the furniture. We are forced therefore to rely upon chemical bactericides, such as vapour of burning sulphur and chlorine gas.

American precaution against the use of imperfect antitoxin.—In America the Board of Health of New York has adopted the following resolution: 'That no preparation of diphtheria antitoxin shall be offered or exposed for sale in this city unless the receptacle containing such preparation has a label on which is placed a statement of the value of the contents in antitoxin, as measured by some generally recognised standard, and the name and address of the producer.'

'The New York Medical Record' for January 5, 1895, remarks: 'No one doubts that this resolution is in the interests of public health. But it is a curious fact that such a resolution is allowed to pass unnoticed by the advocates of personal liberty. The newspapers advertise, and drug-stores display, any number of spurious cures for cancer, consumption, epilepsy, &c., and no one protests. But the sale of a spurious cure for diphtheria is forbidden!'

DR. MURPHY'S ANASTOMOSIS BUTTONS FOR INTESTINAL APPROXIMATION, &c., WITHOUT SUTURES

DR. MURPHY, of Chicago, has invented what he terms an Anastomosis Button. This device has been extensively tried both in America and in this country, and is becoming well known to every surgeon.

However, it will probably be useful to describe it, and as we had the opportunity of hearing about it from Dr. Murphy himself at the International Congress at Rome, we give his own description of the subject.

Mr. Pearce Gould, surgeon to Middlesex Hospital, in accord with many other English surgeons, thinks that Murphy's button 'is the best thing of the kind at present before the profession, because of the simplicity and rapidity of its application, and of the thoroughness with which it holds the parts in apposition.' The surgeon must, however, be very careful to see that the button is sound when he uses it. Mr. Gould prefers those made of aluminium.

Mr. J. Ernest Lane has had a very successful case at St. Mary's Hospital, and Mr. Mitchell Banks and Mr. George Hamilton also report very favourably of their experience of Murphy's button at Liverpool.

The advantages claimed over other methods by the use of these buttons are: that they dispense with the need of sutures, the necessity of invagination, the possibility of non-apposition, the danger of sloughing through of discs, the too rapid digestion of the catgut, the almost insurmountable difficulties of technique of operation, the prolonged and fatal exposure of the abdominal contents, and the protracted anæsthesia; finally, the great ease and rapidity of Dr. Murphy's plan renders the instrument as useful in the hands of the busy practitioner as in those of the most dexterous specialist.

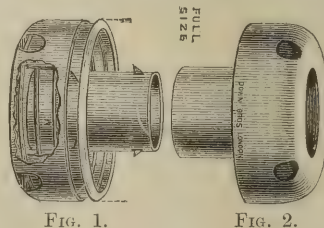


FIG. 1.

FIG. 2.

Fig. 1 shows the male half of the button, which has a spring flange for keeping up pressure as atrophy proceeds. The two springs projecting through the fenestra in the hollow stem act as the male thread of a screw when the shank is telescoped within the stem of fig. 2; fig. 2 shows the female half of the button.

Cholecysto-enterostomy.—‘An incision is made from the edge of the ribs, two inches to the right of, and parallel to, the median line, extending downwards three inches. The gall-bladder and duodenum are drawn into the wound; a needle with fifteen inches of silk is inserted in the duodenum, directly opposite the mesentery, and at a point near the head of the pancreas; a stitch is taken through the entire wall of the bowel, one-third the length of the incision to be made; the needle is again inserted one-third the length of the incision from its outlet, in a line with the first, and embracing the same amount of tissue as the first. A loop three inches long is held here, and the needle is inserted in a similar manner, making two stitches parallel to the first, in the reverse direction, and one-fourth of an inch from it, coming out at a point near the original insertion of the needle. This forms the running thread (fig. 3), which, when tightened, draws the



FIG. 3.

incised edge of the bowel within the cup of the button. A similar running thread is inserted in the gall-bladder. An incision is now made in the intestine—*two-thirds the length of the diameter of the button to be used*; avoid cutting the running thread when making the incision; the male half of button is slipped in (fig. 4), the running thread tied firmly round the central cylinder; an assistant then holds the button with forceps.

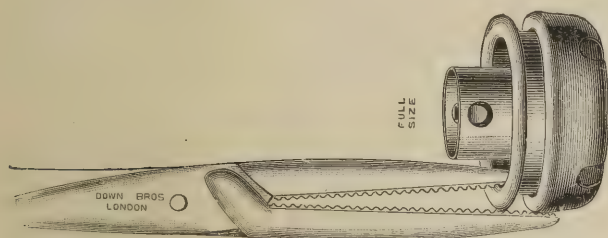


FIG. 4.—SHOWING METHOD OF HOLDING MALE HALF OF BUTTON FOR INSERTION.

‘An incision is now made in the gall-bladder, the same length as the one in the intestine, between the rows of suture. The gall-stones and fluid contents of the gall-bladder are removed, the female

half of button inserted (fig. 5), and the running thread tied.

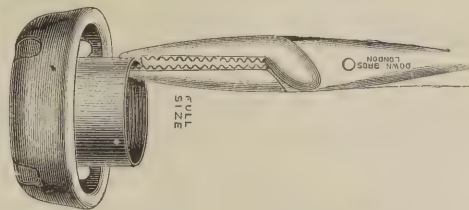


FIG. 5.—SHOWING METHOD OF HOLDING FEMALE HALF OF BUTTON FOR INSERTION.

‘The forceps are then removed; the two halves of the button are held between the fingers, as shown in fig. 6, and slowly pressed together.

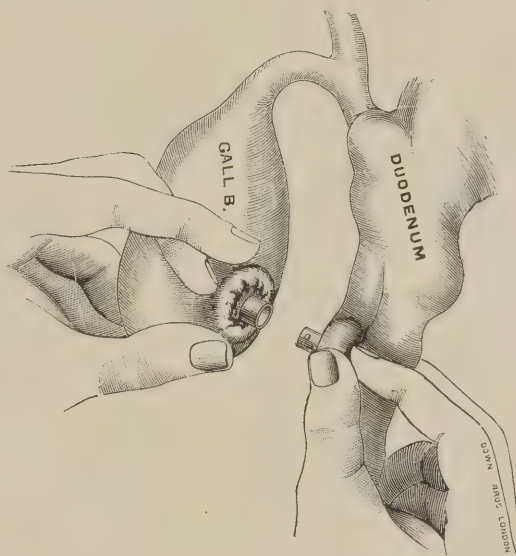


FIG. 6.

(Note that the edge of the wound comes entirely within the clasp of the button before it is completely closed.)

Sufficient degree of pressure must be used to bring the serous surfaces of the gall-bladder and intestines firmly in contact and compress the tissues. The elastic pressure of the spring-cup of button produces a pressure atrophy of the tissues embraced by it, and leaves an opening larger than the button. When the button is liberated, it passes on through the bowel, generally from eight to fourteen days after operation. The time occupied by the operation on the first patient was eleven minutes, from the entering of the peritoneal cavity to the closing of the same.’

Gastro-enterostomy may be performed on the same lines as cholecysto-enterostomy, the female half of the button being inserted in the stomach.

Gastrostomy.—The buttons will be found useful

for this purpose, also the drainage-tube button, referred to later under the heading Cholecystostomy.

Lateral approximation, or intestinal anastomosis.—‘In performing this operation, Dr. Murphy urges the necessity of approximating the proximal end to the distal side of the bowel. The distal end of bowel being sewed with silkworm-gut suture, the male half of button is inserted in the lateral opening of distal bowel, as in cholecysto-enterostomy, and the female half of button in proximal end of bowel, after the method described under heading “End-to-end Approximation of Intestine.” Time of operation, nineteen minutes.’

Fig. 7 shows an oval form of anastomosis button, with a U-shaped key (fig. 8), for the purpose of disengaging the springs from the female thread, which may be preferred by some operators for lateral approximations.

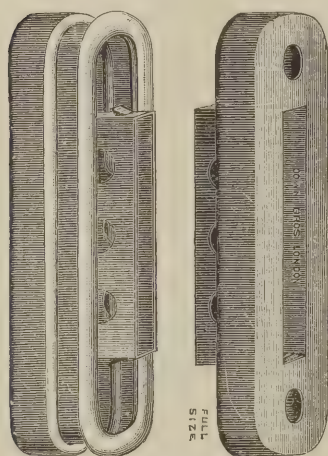


FIG. 7.

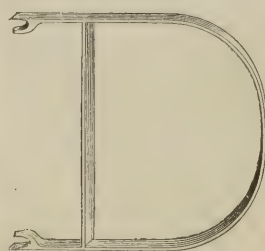


FIG. 8.

Pylorectomy.—The following extract from account of an operation performed upon a dog will explain briefly the method employed and advantages claimed:—‘After drawing the pylorus into abdominal wound, ligaturing the greater and lesser omenta, and cutting them off, I made a circular incision with scissors on a grooved director, cutting through the muscular and serous coats of the stomach down to mucous coat, completely around the stomach where it was to be excised.’

‘I then denuded the mucous membrane of its muscular and serous coats for half an inch in the direction of the pylorus. A silk ligature was placed around the mucous coat at the line of the original incision; a large compression forceps was placed on portion of stomach to be removed. The mucous

membrane was cut off half an inch below the ligature. This then presented the appearance of a rosette. A puckering stitch was then run all around the edge of the mucous membrane, and tied. The silk ligature was then removed. An interrupted silkworm-gut suture approximated the peritoneal and muscular coats of the stomach over the corrugated stump of the mucous membrane, completely closing the end of the stomach. The duodenum was excised an inch and a half below the pylorus; a running thread was made, and male half of the button inserted. The other half of the button was inserted in the posterior wall of the stomach, two inches from line of suture, in the usual way, and the button pressed together. It was found, before placing the button in the duodenum, that the head of the pancreas came within an inch of the pylorus, and that the bowel had to be denuded of a portion of its peritoneum, by loosening the end of the pancreas, in order to allow the button to be closed. This would not occur in the human subject, as the head of the pancreas is a considerable distance from the pylorus.

‘The advantages of this operation over the one frequently performed—that of sewing the end of the bowel in the opening made by the excision of the stomach—are, first, there is no dead-point at the angle of suture between the stomach and bowel, which has been the great cause of fatality in this operation; second, the rapid and early closure of the mucous coat; third, the assurance that there would be sufficient opening for the easy exit of the contents of the stomach during the process of healing, thus preventing tension of the sutures at the end of the stomach; fourth, advantage over the lateral approximation operation by the subsequent mixing of the food with the secretions of the liver and pancreas in about their normal way, and avoiding the danger of the great contraction that follows it; fifth, the great saving of time (this method occupies about an hour); sixth, no possibility of escape of stomach contents at time of operation; seventh, there is but very little hæmorrhage.’

End-to-end approximation.—‘The intestine is cleared of its contents, and intestinal compression clamps placed in position. The mesentery of portion to be excised is ligatured, intestine excised, running thread placed in position by a top stitch along the excised edge, beginning opposite the mesentery and continuing down to the mesentery; one return overstitch is taken at the mesentery (see fig. 9, a), and then continue the top stitch up the opposite side to the starting-

point, as in fig. 9, *b*; this constitutes the "puckering string," and when tied round the stem of the button, which is then inserted, draws the cut edge within the



FIG. 9.

elasp. Particular attention should be given to the return overstitch at the mesentery, so that both layers of the peritoneum overlap. The other half of the button is inserted in the same manner (see fig. 10), and the button is then pressed together.

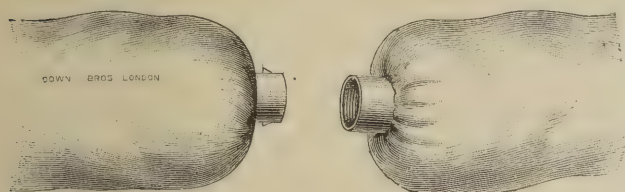


FIG. 10.

'I advise the use of a special size button, one and a half inch in diameter, for the end-to-end approximation of the large intestine. It is more easily applied, and has a larger central opening for the temporary passage of feces.'

Cholecystostomy.—'This operation can be performed with the anastomosis button, in much less time and with much greater safety than with suture, in the following manner. The half of the button that is to be introduced into the gall-bladder is first threaded by passing two pieces of surgical silk about eighteen inches long through the four drainage-openings in the bowl of the button, each thread being passed through two of the openings nearest one another; the four ends of the threads are then drawn even and passed through the cylinder of the button, entering the cylinder at its junction with the bowl. This enables traction to be made on this half of the button after it has been placed in position in the gall-bladder, thus permitting a firm approximation and locking of the two halves of the button. The threaded half of the button is inserted into the gall-bladder in the same manner as in cholecysto-entero-

stomy. An artery forceps is then pushed through the parietal layer of the peritoneum, one-half inch to the side of the incision, grasping the stem of the button inserted in the gall-bladder, and drawing the stem through the opening made by the artery forceps. Pass the traction cords through the other half of the button, draw the button together, and remove the threads. Sew up the original opening in the peritoneum with catgut. You have now secured a firm permanent approximation of the surface of the gall-bladder to the parietal layer of the peritoneum. The gall-bladder will drain through the button, and if the drainage-tube button (fig. 11) is used, the discharge can be brought to the surface without coming in contact with the wound.'

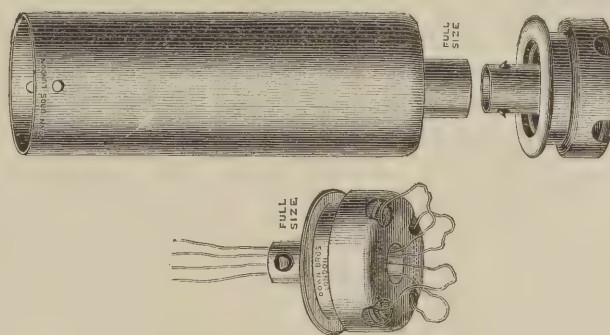


FIG. 11.—SHOWING DRAINAGE-TUBE BUTTON, ALSO METHOD OF THREADING.

Incision of the gall-bladder without further operative procedure.—'In performing this operation, where gangrene of the wall or extensive adhesions indicate the advantage of the use of the drainage-tube button (fig. 11), the following is the procedure adopted:—An incision is made in the abdominal wall in the usual position for operations on the gall-bladder, beginning at the ninth costal cartilage, parallel to the external border of the rectus muscle, for a distance of two and a half inches. The gall-bladder is located, a sufficient surface of its wall exposed, the contents aspirated, the purse-string suture inserted, the gall-bladder incised, male half of button inserted, purse-string tied and cut short; the tubular portion of button is then pressed into position; the tube is then drawn out as far as the gall-bladder will permit, and held there with a pin passed through the openings in its side.

'During the time the pressure atrophy in the portion of the gall-bladder clasped between the button is taking place, a cicatricial wall is being formed about the tube, which acts as the wall of a

sinus after its production, and insures continued protection of the peritoneal cavity.'

PRECAUTIONS ADVISED BY DR. MURPHY

'Do not make incision too long—not more than two-thirds diameter of the button; it will stretch.

'Grasp the wall of the intestine with forceps while inserting the button.

'Do not cut the running thread while making incision.

'When closing button, be sure the incised edge is always within the clasp of the button.

'Do not use a Lembert's suture with the button; it is useless.

'It is not necessary to abrade the peritoneum.

'Carefully examine the button, as a number of imperfect ones are on the market.

'Bear in mind that the button is not indestructible.'

Messrs. Down Brothers, of St. Thomas's Street, London, supply these buttons (for which they have received personal instructions from Dr. Murphy), at the following prices:—

		£	s.	d.
Circular buttons, as fig. 1, made in three sizes	each	0	13	6
Extra large size ditto, 1½ inch diameter	...	0	17	6
Drainage-tube button, as fig. 11	...	0	19	6
Oblong button, as fig. 7, with key	...	2	0	0
Dr. Murphy's intestine clamp forceps	...	0	7	6

Dr. Robert H. Dawbarn, of New York, Professor of Operative Surgery and Surgical Anatomy, New York Polyclinic, has published a paper upon the relative value of the Murphy Button and Absorbable Plates. He considers that for cholecysto-enterostomy Murphy's button is 'a most brilliant device, wonderfully successful, and the greatest advance upon former plans,' but as to bowel-work and stomach-work he calls attention to some cases reported at the meeting of the New York Surgical Society, November 14, 1894, by four of its members.

In these cases blocking of the opening in the button, or retention of the button in the stomach, followed by peritonitis and death, occurred, but from the description we should think that these were exceptional cases. However, Dr. Dawbarn advocates in the place of the button raw vegetable plates, such as those cut from potatoes and turnips, which, he states, are better than decalcified bone.

It is probable that before long we shall have many more cases upon which to form a judgment as to the value of Dr. Murphy's buttons, but so far in this country the opinion seems to be favourable.

PAGET'S DISEASE OF THE NIPPLE

Of late years this affection, though rare, has justly attracted a considerable amount of attention from both pathologists and surgeons. This is largely due to the condition having come to be regarded as a modification of cancer.

This view was first advanced by Thin in England, and has more recently been adopted by Wickham in France. The latter author, with Darier, was amongst the first to describe certain cell-inclusions occurring in Paget's disease, and in cancer, as parasitic protozoa.

Whatever may be the final issue of this much-disputed matter, every well-recorded case of Paget's disease is of interest to practitioners, and for this reason we draw attention to a case in which the affection involved an enormous extent of skin. The case is reported by M. W. Schulten, of Helsingfors.

A woman was admitted to hospital, aged sixty-nine, previously healthy except that for fifteen years before she had suffered from a disease of the skin which began in the right nipple, and for which cauterisation had been practised about a year after its commencement. The redness spread slowly to the surrounding skin. When first seen by the author (seven years before admission) the nipple was retracted, and in the skin about the nipple were many smooth, red, slightly moist and shiny spots. These were, for the most part, connected with one another, and distributed over the whole of the skin covering the mamma, and in parts beyond it. There was no marked induration of the skin, nor were any enlarged mammary glands to be felt. The appearance was neither that of eczema nor of lupus. The author applied chloride of zinc, fuming nitric acid, and other caustics. The breast soon afterwards became indurated and was removed. Most of the diseased skin was then taken away, but a few outlying spots were left, because they extended over a considerable area beyond the breast. These outlying spots were treated by caustics. The mammary tumour was found to be typical cancer. The wound healed readily. In spite of repeated cauterisation the affection of the skin spread, and a small nodule of recurrent cancer formed in the scar. The patient's general health remained good.

Several surgeons expressed the opinion that the skin affection was lupus, so the author tried the effect of an injection of Koch's tuberculine. There was no reaction. Eight years after the breast was amputated the skin of the whole of the right side of the chest, and the upper part of the abdomen, was bright red,

shiny, and slightly indurated at the margin of the diseased part, which extended across the middle line to the left nipple, and for some distance down the arm.

The coloured plate which accompanied the article suggests cuirass cancer rather than what we are accustomed to see in Paget's disease, but the illustrations of histological sections are those of Paget's disease. The author takes the view that the affection is superficial cancer. The case may be taken as an illustration of the fact that Paget's disease need not necessarily be found in the immediate neighbourhood of the nipple.

Since Paget first described the affection in 1874, and Bultin followed with four cases in 1876, it is true that in the great majority of the cases the nipple has been the starting-point, but Crocker has described a typical case affecting the scrotum of a man, so that this disease is neither limited to the nipple nor to the female sex. Its early recognition, and complete removal by the knife, are points of great practical importance.

THE CONDITION OF THE BLOOD IN THE CYANOSIS OF CONGENITAL HEART DISEASE¹

Dr. G. A. Gibson, Physician to the Deaconess Hospital, Assistant-Physician to the Royal Infirmary, Edinburgh, read an interesting paper upon this subject before the Edinburgh Pathological Club on December 19, 1894. He referred to the fact of there being considerable increase in the amount of red corpuscles, and he went on to remark that there were two different explanations of cyanosis—the one that of venous stasis (Morgagni), the other that of a mixture of the arterial and the venous blood (Hunter). Both these theories have been supported by numerous observers, the preponderance being in favour of the first. The view of Hunter is negatived by the fact that in many cases permitting the mixture of arterial and venous blood there is no cyanosis, and in many cases of cyanosis there is no possibility of the mingling of venous and arterial blood. Then if the cyanosis is produced by obstruction to the circulation and venous stasis, why should this condition be associated with an increase in the number of blood corpuscles; this increase being found not only in congenital cyanosis, but in all cases where cyanosis is really present on account of failure of the circulation?

¹ *Lancet*, January 5, 1895.

After referring to and describing various experiments and much evidence, he stated that compensation in valvular lesions 'is produced by the definite structural changes constituting hypertrophy, caused by increase of work, and compensation in cyanosis must have some reasonable explanation also. It seemed to him that such an explanation may be found in a consideration of the functions of the red corpuscles under changed conditions. In venous stasis the corpuscles are insufficiently oxygenated, they cannot perform such an active part as oxygen-carriers, and they cannot yield so much oxygen to the tissues. It must further be remembered that in cyanosis there is less metabolism in the tissues, and therefore less waste produced. In a word, the functions of the corpuscles being lessened, the wear and tear which they undergo is reduced and the duration of their individual existence increased. The number of the corpuscles must in this way be proportionately augmented, and this must lead to the numerical increase, as well as to the high percentage of hæmoglobin, until a balance is struck between the production and the destruction of the blood corpuscles.'

A CASE OF IDIOPATHIC PERNICIOUS ANÆMIA IN WHICH ARSENICAL PALSY HAD BEEN INDUCED TREATED BY BONE-MARROW

In the 'British Medical Journal' for February 16, 1895, a very valuable communication upon this subject appears by Dr. Alfred G. Barrs, F.R.C.P. (Lond.), Physician to the General Infirmary at Leeds, &c. We quote sufficient to give the general effect of this article.

'The following case of pernicious anæmia, although the only one in which bone-marrow has been given under my personal observation, seems to me to be worthy of record at the present moment because it illustrates amongst other things how, in pernicious anæmia, arsenic, though given till arsenical palsy is induced, may fail entirely to affect the blood state, and how the blood state may be entirely removed and perchance cured by the administration of a hæmopoietic tissue, namely, bone-marrow.

'For arsenic in efficient doses to fail to influence, to some extent at least, the course of pernicious idiopathic anæmia is, in my experience, quite exceptional. As a rule, its administration results in marked improvement, if not actual cure for the time being, to be followed very soon by relapse, in which,

strange to say, the drug frequently fails to be of the smallest benefit, and the patient ultimately succumbs to his disorder. This curious behaviour of arsenic seems to me to be quite characteristic of the disease; its failure in relapses is frequently as signal as its success in the first period of the disorder, in which, as I have said, it seems to effect a complete cure. . . . This case is the second I have seen in which arsenic given in medicinal doses has produced profound and long-standing palsy. The first will be found very briefly recorded in the 'British Medical Journal' for 1893, vol. i. p. 239.'

For description of method of preparing the bone-marrow, see p. 90, under 'Therapeutics.'

DR. WALTER REID'S PLAN OF TREATING POPLITEAL ANEURISM

Dr. Walter Reid, Deputy-Inspector General, Royal Navy, describes ('Lancet,' Jan. 5, 1895) a case of double popliteal aneurism, in which the one was cured by slow intermittent pressure, and the other, subsequently, by Dr. Reid's plan of **locking up the blood in the aneurismal cavity by means of elastic appliances sufficiently long for its coagulation en masse**, and not by the deposition of fibrinated laminæ as usually follows treatment by ligature or slow pressure.

The details of Dr. Reid's treatment may be summarised as follows: Rest, simple diet, and iodide of potassium for a few days, during which Carte's tourniquet was occasionally applied to the femoral to increase the collateral circulation preparatory to occlusion of the vessel. The aneurism was then protected by a gutta-percha shield. The blood was forced out of the limb by means of a rubber bandage applied from the toes to the middle of the thigh. A soft elastic constrictor was applied at this upper part over a flannel bandage, and then the elastic bandage and shield were removed.

The limb was rendered bloodless in order to preserve the collateral vessels from clots. The patient was kept warm. In an hour the aneurism was hard, solid, and decidedly smaller. A Carte's tourniquet was then applied to the femoral and the elastic constrictor and flannel bandage removed. Five hours later the tourniquet was taken off, when only a slight pulsation, hardly perceptible, was felt in the tumour; but ceased in five days and the vessel became occluded in the lower part of Hunter's canal.

Comparative results of the two plans of treatment.—

In the left aneurism, treated by slow and intermittent pressure, the remains now form a 'hard unyielding lump in the popliteal space, causing a good deal of discomfort to the patient, and interference with the use of the limb;' a condition which will probably continue for a long time.

In the right aneurism, treated by Dr. Reid's method, which aims at the rapid formation of an ordinary blood clot, the soft material has contracted as well as the sac which enclosed it, so that there was only a small mass left in the floor of the popliteal space, which could hardly be distinguished by the observer, and was not felt by the patient at all.

In the left limb (slow pressure treatment) no pulsation can be felt in the femoral artery below the origin of its deep branch in the groin; whilst in the right limb the femoral can be felt pulsating in the lower part of Hunter's canal.

Dr. Reid's first patient died from other causes eight months after his aneurism had been cured, and it was found that the vessel was only occluded for about $2\frac{1}{2}$ inches of its course.

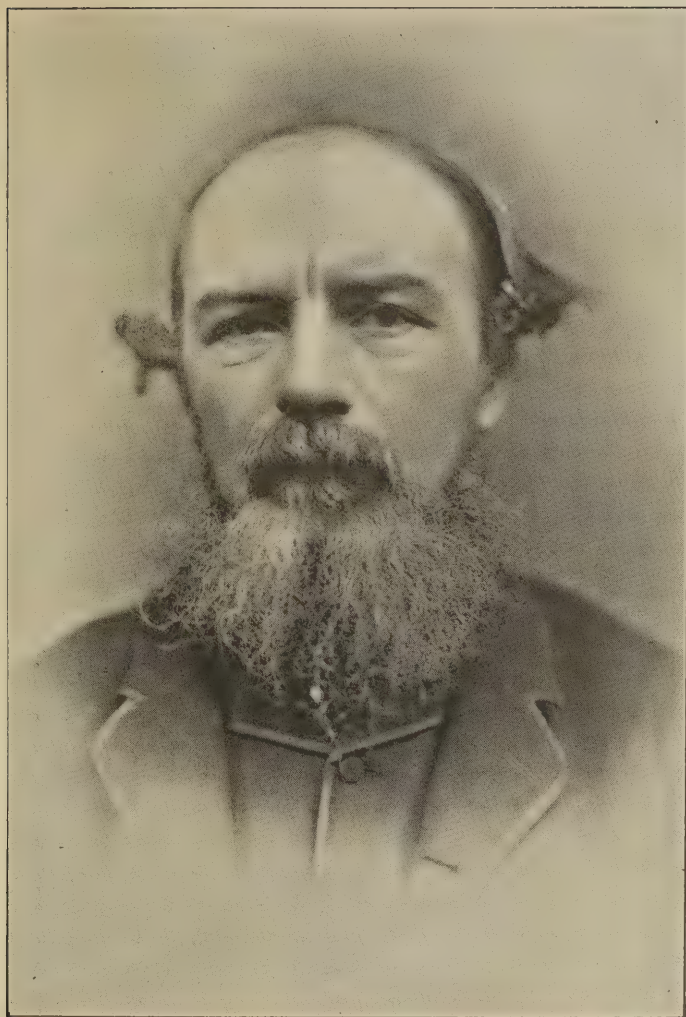
John Whitaker Hulke, F.R.S.

LATE PRESIDENT OF THE ROYAL COLLEGE OF SURGEONS
AND SENIOR SURGEON TO MIDDLESEX HOSPITAL.

JOHN WHITAKER HULKE was descended from ancestors of the name of Hulcher, who were driven from the Low Countries by the Duke of Alva in the sixteenth century.

He was born in 1830 at Deal, where his father practised as a doctor, and was educated at King's College School. He subsequently became attached (1857) to the Royal London Ophthalmic, and afterwards (1862) to the Middlesex Hospital, at which institutions he worked hard up to the time of his decease.

After leaving King's College, where he worked under Bowman and Fergusson, he volunteered his services (1855) in the Crimean War. There he served at the Hospital at Smyrna, and at the General Hospital before Sevastopol. Returning to England he devoted himself to ophthalmic surgery, and, in conjunction with Bowman and Critchett, he took a leading part in establishing this branch of his profession as a substantial and orthodox specialty.



J. W. Hulke

He adhered, however, also to the study and practice of general surgery, in which he came to hold a high position both as teacher and practitioner; and whatever opinion of his character he may have engendered among his followers, as a man of strong and decisive views, he has always been respected and admired as a sound observer and as a punctilious and exact surgeon.

No student who has had the good fortune to study under Hulke but has fully valued his opinion and been glad to take his advice. No member of his profession who has known the man and his abilities has underrated his skill as an operator, or his sound judgment in matters of surgical difficulty.

As an examiner at the College of Surgeons he has always been looked upon as fair and conscientious, if somewhat austere and firm.

As a member of the Council of the College his opinion upon all matters has been greatly valued by his colleagues.

As a man of sound common-sense, absolutely strict integrity, and possessing an instinctive clearness of judgment, he has stood pre-eminent.

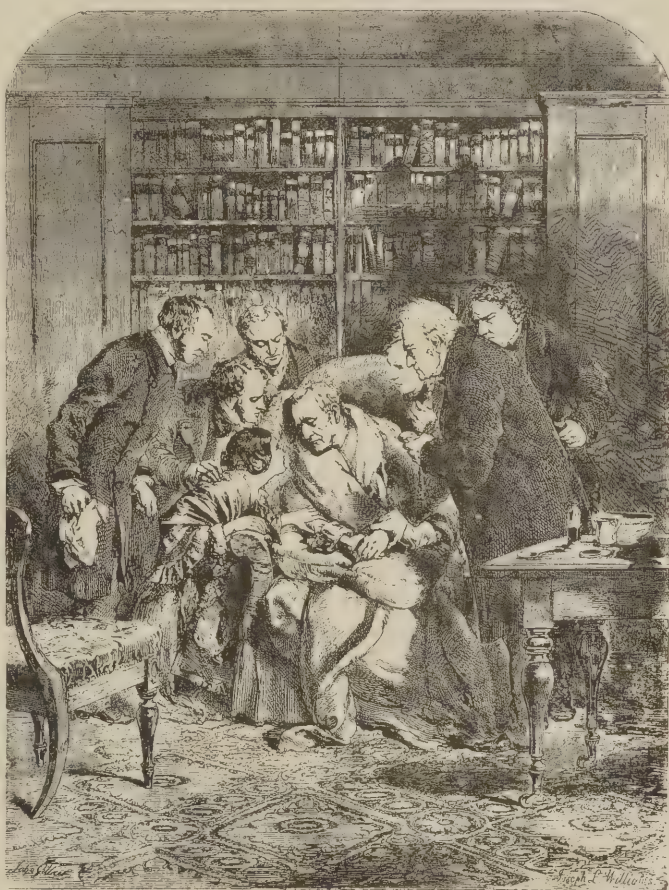
Conservative in tendency, assiduous to the last degree in every duty he has undertaken, he has always commanded the esteem of his colleagues and the admiration of his friends. Hulke was too straightforward to obtain a reputation for being conciliatory, but all who came in contact with him were impressed by his directness of purpose, his absolute impartiality, and his devotion to duty.

Under a somewhat rigid demeanour there existed a kindness of heart which was not always apparent, but which showed itself especially in his appreciation of those who lived and practised according to those straight lines of conduct which he himself followed so consistently.

In the 'Illustrated London News' for Nov. 13, 1852, appears an engraving by John Gilbert which is a very interesting reminiscence of Mr. Hulke. It represents the death of the Duke of Wellington, upon his left side being Dr. McArthur in the foreground, and the elder Mr. Hulke and his son behind. The others are Lord and Lady Charles Wellesley, and the butler and valet.

We are enabled through the courtesy of the proprietors of the 'Illustrated London News' and the 'Sketch' to give a reduced representation of this picture, which is also interesting as being an early example of the work of Sir John Gilbert. The portrait which forms our chief illustration has been

copied from an excellent photograph taken by Messrs. Barraud, of 263 Oxford Street, who seem to have an aptitude for producing good photographs of medical



men. This firm is preparing a photogravure of the portrait for publication.

Mr. Hulke's earliest contributions to literature were papers in the 'Transactions of the Royal Society' dealing with the histology of the retina in Amphibia and Reptilia; also with the structure of the *fovea centralis* of the human retina. He published many admirable and well-known papers in the early volumes of the 'Royal London Ophthalmic Hospital Reports' on such subjects as Intra-ocular Cysts and Tumours; Orbital Tumours, especially Melanomata; Diseases of the Lachrymal Gland and Distension of the Frontal Sinus. Later, as his clinical experience increased, we find papers on the Pathology and Treatment of Glaucoma, and then his 'Treatise on the Use of the Ophthalmoscope.'

'The Transactions of the Pathological Society' are enriched by a valuable series of reports on specimens exhibited to the Society. In the preparation of many of these reports, the production of which entailed much labour,

he was associated with such men as Murchison and Campbell De Morgan.

He contributed eleven papers to the 'Medico-Chir. Trans.,' and they all deal with exceptional cases. Three may be selected as examples:—

1. A case of lodgment of a Tracheotomy Tube in the Right Bronchus and its extraction.

2. A case in which a Sixpence was lodged in the Larynx during six weeks.

3. A case of secondary Trephining for Traumatic Abscess of the Brain (1879).

Mr. Hulke's papers in the 'Transactions of the Clinical Society' are eleven in number, exclusive of his presidential speech. Three of these are of exceptional value:—

1. A case of Sutural Junction of the Ulnar Nerve fifteen weeks after its complete severance by a roofing slate (1879).

2. A case of Sutural Union of the Median Nerve in the lower part of the Forearm four weeks after its division by a broken glass bottle.

3. Extreme Hypertrophy of the Epithelial and Papillary Element of the Mucosa of the Tongue, Ichthyosis glossæ, Epithelioma supervening.

In addition to numerous reports of cases and clinical lectures in the weekly medical papers Mr. Hulke wrote the article on 'Injuries of the Upper Limb' in the 'System of Surgery' of which he was co-editor with Mr. Holmes.

Among Mr. Hulke's purely scientific papers must be mentioned his description of *Iguanodon* (the digits and enormous humerus of this animal he was ever proud to show his visitors) and that in which he attempts the restoration of *Hypsilophodon Foxii* (published in 'Phil. Trans.'), a strange and interesting dinosaur, combining in its skeleton structures which among living forms occur separately in reptiles and birds: thus the dinosaurs form a link between these two specialised forms. Other papers of special palæontological interest are contained in the 'Transactions of the Geological Society.'

Abstracts from Foreign Journals.

SYPHILIS AS A CAUSE OF GENERAL PARALYSIS

M. FOURNIER, in 'Le Progrès Médical,' analyses the statistics of twenty-seven different authorities, the results of which give 50 per cent. of general paralytics in whom there was a history of syphilis. In 14 cases under 16 years of age 13 were syphilitic.

There are four possible views as to the exact manner in which syphilis may produce this effect:—
(1) in conjunction with alcoholism, overpressure, and

nervous heredity as a previous disease, or (2) as a secondary condition; (3) acting directly on the nervous centres by its toxins; (4) or the action of the toxins after the skin and mucous membranes have been attacked.

TWO CASES OF REMOVAL OF THE STOMACH

The *Journal de Médecine, de Chirurgie et de Pharmacologie* of Brussels, in its January number, publishes a short notice, taken from the *Deutsche med. Wochenschrift*, No. 52, 1894, of two cases of removal of the stomach performed by Langenbuch.

The first case was that of a woman aged 58, who was suffering from a malignant growth occupying the posterior surface of the stomach, with disseminated nuclei along the greater curvature and in the omentum. Having separated the two layers of the omentum and resected the parts which were diseased, Langenbuch encircled the stomach by two incisions, only leaving a small piece at the pylorus and another piece at the cardiac opening. These two pieces were then sutured together so as to make a stomach the size of a hen's egg. Fearing for the solidity of the sutures, he fixed the anterior parts of the pyloric and cardiac portions in the abdominal wound. The same evening the patient took a little milk, the next day other liquid foods. At the end of a few weeks the wound was completely cicatrised, the patient had gained 22 pounds and was able to leave the hospital.

In the second case a complication arose at the beginning of the operation, in the form of a rupture of the cardiac end of the stomach, while the abdomen was being opened, which necessitated the use of temporary sutures. The permanent sutures gave way at this point on the third day after the operation, and the milk given was found in the dressings. The patient died on the sixth day. The necropsy showed localised peritonitis around the points of the relaxed sutures.

ANEURISM OF THE THIRD PART OF THE SUBCLAVIAN ARTERY—(CURED)

At the meeting of the Académie de Médecine of Paris, on January 29 last, M. P. Berger read the report of a case of aneurism of the third part of the subclavian artery, which Dr. Charles Monod had cured by ligaturing simultaneously the subclavian and the common carotid. The patient was a man aged 51, and was admitted to the St. Antoine Hospital for a sharp pain in

the right shoulder. On examination a small pulsatile tumour the size of a walnut was found in the subclavicular space. Dr. Monod, on deciding to operate, first intended to adopt the method of Brasdor-Wardrop, but, uncertain whether it would be possible to pass a ligature between the clavicle and the tumour, he abandoned this idea and proposed to ligature the brachio-cephalic trunk. During the operation, however, he found the innominate situated so deeply that to reach it would have necessitated a resection of part of the bone, so he came back to his first plan and applied a ligature to the subclavian between the tumour and the clavicle. He gives as his reason for ligaturing the common carotid that in those cases that have been reported the failure to cure the aneurism and the fatal hæmorrhages which supervened are attributed to the too rapid return of the blood in the sac.

The striking features of the case were that no difference could be detected in the radial pulses, that compression of the axillary artery had no influence on the tumour, while compression of the carotid artery notably diminished the intensity of the pulsations in the aneurism.

When Dr. Monod presented his patient to the *Académie*, four months after the operation, all signs of tumour had disappeared, but it was impossible to feel any pulsations of the radial or brachial arteries of that side.

after his birth. Menstruation returned seven months after the weaning, but was then scant and irregular, disappearing finally when the patient was thirty.

Soon after parturition pain and cramping sensations in the right leg and toes became annoying. About the time menstruation ceased a decided lack of endurance was noticed and severe headaches began to occur, the pain being at the vertex or just back of the eyes, sometimes of a shooting character. At times the patient felt as though the blood was rushing to her head and crowding the eyes out of their sockets. There has been much suffering from headache ever since.

Before this she had been very slender. Now, a decided enlargement of the abdomen, with increase of weight, was noticed. At the age of thirty-two she began to have shooting pains in the hands, and the



Epitomised Lectures and Papers

A CASE OF ACROMEGALY, WITH REMARKS ON THE PATHOLOGY OF THE DISEASE¹

By HOWELL T. PERSHING

M.Sc., M.D., Denver, Colo.

Mrs. A. B., aged 42 (May 1893). Her father is in perfect health, aged 70. Her mother died at fifty-four of consumption.

Menstruation had been generally profuse and painful; otherwise she was perfectly well until twenty-eight years of age, when her only child was born. This child, who is now quite well, was weaned soon

joints of the fingers were enlarged. She could no longer button her clothing. This was supposed to be 'rheumatic gout,' but it soon became evident that

¹ Read before the American Neurological Association, Washington, D.C., May 1894, and published in the *Journal of Nervous and Mental Disease*, New York, November 1894.

the entire hand was growing larger, the feet also enlarged. When about thirty-two years of age vision began to fail in the right eye, and this eye has since become totally blind. One half (the right probably) of the field was lost before the other. The left eye, which now shows distinct temporal hemianopsia, was not noticeably defective until March 1892. Soon after the defect in vision was first noticed there began to be a roaring in the ears, synchronous with the pulse, which has persisted, more or less, ever since.

When she was thirty-five years old the gums began to recede from the teeth. Three years later, on account of pain in the jaws, fifteen teeth were extracted; the lower jaw began to project beyond the upper one.

For the past five or six years there have been attacks of palpitation of the heart with dyspnoea; of late they have somewhat abated. At times there has been very profuse sweating.

Condition, May 1893.—The patient is five feet five inches in height, and weighs one hundred and forty pounds. Her general appearance is very striking, suggesting acromegaly at the first glance. The face is long and massive. The eyeballs are prominent and the lids large and puffy. The nose is very long, and its lower part much enlarged. The lips are thick, with the aperture of the mouth wide, while the lower jaw is much too long for the upper.

The hands, while not much elongated, are decidedly thicker and broader than normal, the fingers having the characteristic 'sausage shape.' The feet are also broad and thick, but not so large, in proportion, as the hands.

The neck is somewhat bent forward. The larynx is not prominent. The thyroid gland can barely be felt; it seems smaller than normal. Speech is slow and drawling, with the voice rather high-pitched.

The clavicles at their sternal ends are enlarged. There is no marked abnormality of the lower limbs except the size of the feet.

The skin and nails are normal. Sweating was formerly very profuse, but is not so now. The hair of the head is abundant, and has grown thicker during the progress of the disease; on the other hand, hair has almost entirely disappeared from the pubes and axillæ. There are no glandular enlargements.

The pulse is regular though small. The first heart sound is soft; otherwise the sounds are normal. The temperature, 97.8° F. There are periods of excessive thirst, also obstinate constipation. Judging by percussion dulness, the liver is small while the spleen is of normal size.

The urine contains no albumen or sugar.

Muscular power is diminished in the lower limbs generally. There is no facial paralysis, and the tongue, which is very large, is protruded in the median line. The plantar reflex is present, and the knee-jerk and Achilles-jerk exaggerated on both sides. There is slight but distinct ankle-clonus on the left side and a trace of clonus on the right.

The right eye is totally blind. Vision in the left is so impaired that the patient can no longer read, although she can see enough to avoid objects in moving about the room. The outer side of the visual field is blind, the line of demarcation between it and the inner side being sharply defined.

The pupils are equal, and both react to light falling on the left eye. There is no paralysis of the extra-ocular muscles, but the right eye wanders out from lack of fixation. The left optic disk is in a condition of advanced atrophy; the right disk is still more atrophic, the largest vessels being mere threads. There is lachrymation during the attacks of pain back of the eyes. The lids are puffed but not œdematous.

The mental condition appears somewhat dulled, and the patient is at times rather irritable; but there is no marked defect of memory, and, on the whole, she bears her pain and faces the hopelessness of her miserable situation remarkably well.

Then follow elaborate measurements, the circumference of the skull being 58 cm. The left limbs are slightly smaller than the right, the circumference of chest on deep expiration was 79 cm.; circumference of chest on full inspiration, 86.5 cm.

The treatment consisted in the administration of codeine, cannabis, and acetanilid, with an occasional injection of morphia to relieve the severe pain in the head. One evening there was a rapid failure of what vision remained, so that in a few minutes she was almost totally blind. The ophthalmoscope showed no change in the vessels or nerve-head, and by the next day vision was restored to about what it had been before.

In September 1893, profuse sweating and loss of control of the bladder, but less pain. Thyroid extract was ordered, but it was too late to fairly test any remedy. In October, pain very severe in the head and lower limbs; could no longer stand, and there was no control over the bladder or rectum. Early in November coma gradually came on, and ended in death.

I did not know of this until it was too late to arrange for an autopsy.

That this is a genuine case of acromegaly there can be no question. The gradual enlargement of the hands, feet, nose, jaw, and tongue occurs in no other disease.

Without attempting a thorough discussion of the pathology of the disease, I will call attention to some interesting features of this case.

As in Marie's cases, there is an absence of any apparent hereditary predisposition to the disease. Its duration can be accurately fixed as fourteen years. But this case is interesting mainly because it adds another to the constantly growing list of those which confirm Marie's original belief, that disease of the pituitary body is the cause of acromegaly.

The headache, the optic nerve atrophy with consequent loss of vision, the tinnitus, the paraplegia, and the loss of control of the sphincters, all taken together, can be explained only as the local effects of a growth in the region of the pituitary. Such a growth pressing first on the inner fibres of the optic tracts would cause blindness of the nasal half of each retina, that is, of the temporal half of each visual field. It will be remembered that temporal hemianopsia of the right eye was first noticed, and that at the time of examination there was distinct left temporal hemianopsia with complete blindness of the right eye. The loss of the right nasal field was, of course, due to the additional destruction of the outer fibres of the right tract, and a similar destruction of the left tract was evidently going on while the patient was under observation. Such a growth lying between the internal carotid arteries, and pressing on either of them, would cause the rhythmical tinnitus noted. Bilateral pressure on the motor tracts in the crura accounts for the paraplegia and also for the loss of control over the bladder and rectum.

The clinical resemblance between acromegaly and myxœdema is so close that the former has been described as the latter, but there is also an obvious pathological relation, which should lead us to expect a similarity of causes.

The resemblance between the pituitary body and the thyroid gland is also exceedingly close. Measured by their long line of descent, both are most aristocratic organs. The mammalian kidney, for example, is but a new-comer in comparison. The most primitive vertebrates known have the beginnings of the thyroid and pituitary; and in an animal as low as the lamprey, without limbs or jaws, these glands are well developed.

Briefly stated, the evidence for the belief that

acromegaly is caused by interference with the function of the pituitary body is as follows: Of eighteen autopsies of acromegaly, the gland was absent or diseased in fifteen, while in a very large proportion of other cases it was involved. Those who do not accept this theory regard the frequent involvement of the pituitary as simply one of the consequences of the disease. They claim that the gland has been found normal in genuine acromegaly.

Dr. Pershing gives reasons which apparently disprove this view, and states that the pituitary body has not been found normal in any case of undoubted acromegaly that has so far been published.

Still, it is said that destruction of the pituitary body by tumours does not cause acromegaly.

Here it should be noted that extreme care would in any case be necessary to determine whether so small an organ were completely destroyed.

Under all the circumstances he thinks it seems rational to regard the destruction of the pituitary body as the cause of the trophic symptoms.

It does not follow, however, that destruction of the pituitary must always cause acromegaly. Extirpation of the thyroid causes increased growth of the pituitary, and in several cases of disease of the thyroid associated with myxœdema cretinism the pituitary has been found enlarged. Conversely, Vassale and Sacchi claim to have shown that the thyroid enlarges after removal of the pituitary. If these kindred glands are so co-related that one may assist the other, additional work on the part of the thyroid might well be sufficient to prevent acromegaly in one case and not in another. The frequency of thyroid disease in acromegaly, and the fact that Putnam has obtained marked improvement in such cases from thyroid extract, give support to this hypothesis.

It appears, at present, that the most hopeful treatment of acromegaly is the administration of pituitary bodies from the lower animals. I am very sorry it was not tried in the case here reported.

A CASE OF GENERAL BILATERAL PERIPHERAL NEURITIS¹

(WITH RECOVERY)

By GEORGE S. MIDDLETON, M.A., M.D.

Physician to Glasgow Royal Infirmary

The patient, D. M'D, was admitted to the Royal Infirmary on May 11, 1893. He was 23 years of age.

¹ *Glasgow Medical Journal*, October 1894.

He had apparently been exposed to severe cold on his journey for a period of militia training.

He seemed well when he went to bed on April 8. Suffered from cold and shivering at night, perspired profusely, and about 6 p.m. on April 9 was seized with severe pain in both ears, extending across the neck. A few hours later his speech began to fail, lost power of articulation three days later, but always knew the words he wished to use. April 10, had lost the power of mastication, and partly that of swallowing. There were glandular swellings beneath the lower jaw. No sore throat or mouth. The swellings disappeared on April 15.

April 12, suddenly lost power over arms and legs, practically powerless for a week. From April 10 to 20, burning sensations in palms and soles, which, on the latter date, gave place to absolute anæsthesia of these parts. Occasional girdle sensation, pain in chest, difficulty in breathing, two attacks of gastralgia followed by vomiting, the latter on the day of admission (May 11). The same day he fainted in the receiving room, and seems to have been only partially conscious for over an hour. His bowels had been obstinately constipated. Micturition not affected; no shooting pains in the arms or legs; no tenderness on pressure of the limbs; no headache; sense of taste impaired; vision unaffected; has never had diplopia; sense of hearing impaired since commencement of attack; smell not impaired. He had left the Hospital at Fort George on April 21, being able to walk with assistance on each side of him.

After admission to the Royal Infirmary, Dr. Middleton found that the patient could not close his lips, though he could move his jaw. He spoke in a thick and slovenly fashion, the knee-jerk and ankle-clonus were absent from both legs; want of feeling in the feet; could not walk in a straight line, or stand with eyes shut. There had been no pain in the limbs; pupils reacted.

On May 14, Dr. Middleton noted that there was evident want of expression in both sides of the face. Lips kept open, as shown in fig. 1. Pupils normal in size and respond to light and accommodation. A trace of lateral nystagmus; no diplopia; no defect of vision; no suffusion of the conjunctivæ; no protrusion of eyeballs; no ptosis, but unable to close eyelids; inability to wrinkle brows; inability to close lips; buccinators completely paralysed; masseters contract forcibly; can protrude lower jaw slightly; protrudes tongue readily, with slight deviation to right; no deviation of uvula; soft palate moves freely; senses

of smell and taste perfect; can drink fluids, but in doing so supports chin and lower lip with his hand, so as to prevent dribbling. Movements of larynx and trachea in swallowing are normal. No tremor of the lips, only slight tremor of the tongue on protrusion. Speech much affected, mainly owing to loss of power in the lips. Common sensation of tongue blunted, also on forehead, but normal on cheeks. No distinct anæsthesia of the skin of the face or scalp. The fingertips not very accurate in distinguishing sharp from blunt points; grasp feeble; no absolute loss of power in any movements of the hand or arms, but distinct

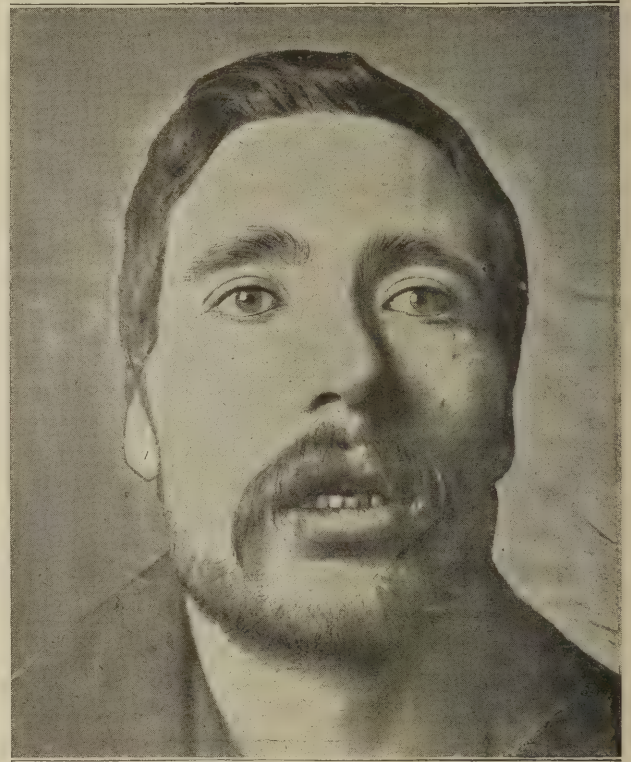


FIG. 1.—D. M.D., MAY 1893.

impairment and slight tremor of the muscles when the hand and arm are extended. No paralysis of intercostal muscles, but action of diaphragm is enfeebled, if not wholly lost. Walks with difficulty, staggering, and with unsteadiness on a single plank; cannot stand with the eyes shut and the feet close together. Sensation in legs apparently good; superficial and deep reflexes entirely absent; no ankle-clonus; respiration entirely thoracic; he considers that he has lost much weight. The *tache cérébrale* is very striking. A broad band of redness immediately shows itself in the course of the track of the pencil

point, and out of the redness there gradually arises a white elevation, like the wheals of nettle-rash. The redness lasts at least half an hour, the wheals an hour and a half. This condition is similar to that existing

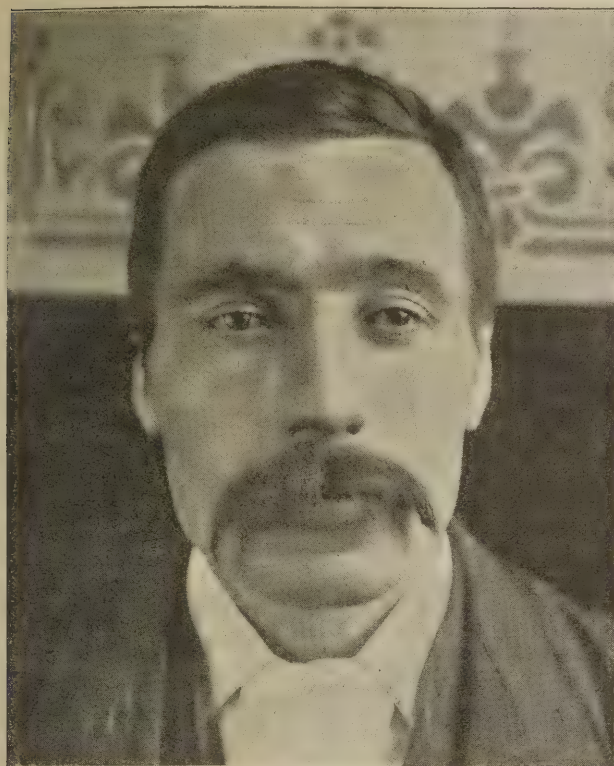


FIG. 2.—D. M'D., SEPTEMBER 1894.

in urticaria. It is questioned whether this condition had anything to do with the patient's illness (see article by MM. Ch. Féré and H. Lamy, 'Nouvelle Iconographie de la Salpêtrière,' vol. ii. 1889). Internal organs healthy. Desquamation about the fingers.

Treatment. Was treated by nux vomica internally and the galvanic current, and he almost immediately began to improve.

On August 5, although feeling very much better, had an attack of severe præcordial pain, which was repeated on the 9th, and accompanied by swellings beneath the angle of the jaw on each side with a slight rise of temperature.

From that time the improvement was continuous and satisfactory until September 11, when he left the hospital to resume work. Slight paralysis remained

in the right side of the face. Sensation was normal. Walking perfect. Knee-jerks returned.

On April 2 it was noted that he had gained in flesh and strength, but the knee-jerks could not be produced. Still some slight paralysis of the lower portion of the right side of the face. Speech still slightly affected.

In September 1894 condition remained the same, but there was no appearance of facial paralysis (see fig. 2).

The patient—whose statement was received with confidence—denied the occurrence of alcoholism or syphilis, and gave no history of influenza or other specific febrile condition, nor was he rheumatic. In his work in a distillery he was exposed to heat and cold, and had often very heavy weights to lift, but for four years he had never lost a day's work. Prior to this, when he first felt pain in the chest, he had a severe hæmoptysis, but this had never recurred.

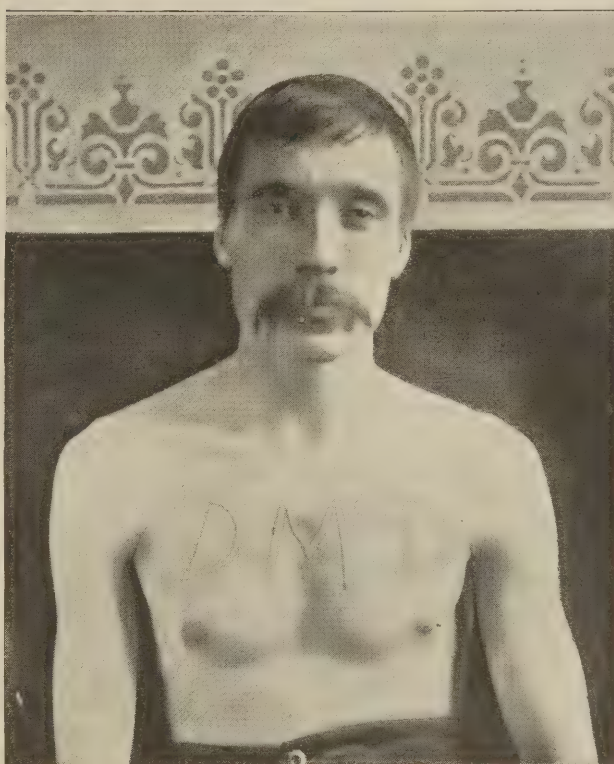


FIG. 3.—REPRODUCED FROM PHOTOGRAPH OF WRITING ON SKIN.

Dr. Middleton thought that the illness had been caused by cold and exposure, and that it was of rheumatic origin; at any rate, the final result was extremely satisfactory.

The Practitioner's Note Book

EDITED BY RICHARD NEALE, M.D. LOND.

Intestinal concretions due to drugs.—In reference to the concretion described in the paper by the late Mr. Hulke (p. 67), the following note is interesting.

There are several insoluble drugs which, when taken in excess, have been known to form large obstructive masses in the bowels. Magnesia seems to be the one most liable to have this result. Dr. Blondeau reports a case of a patient who, being in the habit of taking four tablespoonfuls of calcined magnesia daily, suffered severely from concretions composed entirely of the drug. Dr. De Mussey had to use a chisel and mallet to break up such a mass impacted just within the anus of a lady, the patient eventually dying from the effect of concretions formed by this drug.

Dr. Buchanan records a case of obstruction from several masses the size of walnuts, with facets caused by mutual pressure, entirely composed of calcined magnesia, the patient having been long in the habit of taking this drug.

Bismuth formed 85 per cent. of a concretion that occupied the cavity of the cæcum in a Frenchwoman who had been accustomed to take it in large quantities.

Charcoal is not an infrequent cause of obstruction. Sir B. W. Richardson records in the 'Asclepiad,' 1884, p. 361, a nearly fatal case, and refers to another which occurred in his practice and caused anxiety.

Linseed is a favourite laxative among some classes. Dr. Polaillon treated a young woman who had taken daily for three months a tablespoonful of this grain. Complete obstruction necessitated colotomy, when an enormous quantity of linseed escaped, but peritonitis setting in, the patient died.

Wounds of the heart; duration of life.—A case of a bullet wound that perforated the right ventricle in which the patient lived three hours is reported in the 'Medical Press and Circular,' December 1894, p. 678, by Dr. J. R. Church, with an editorial remark—'It is certainly remarkable that the man should have survived so long after the receipt of such extensive injuries.'

Those who have not studied the effects of severe wounds of the heart would be surprised at the number of cases where life has been prolonged and violent exertions performed after such injuries as are recorded in Section 786 of the 'Medical Digest.'

Dr. Purple, in the New York 'Journal of Medicine,' vol. xiv. pp. 411-34, tabulated forty-two cases, many of them of an astounding character, and only credible when authenticated by indisputable evidence. 'As a rule,' he says, 'wounds of the heart are generally not immediately fatal if the patient survives the shock; then very severe

wounds may cicatrise, and the patient recover, or live for a lengthened period. Instances are recorded where life has been prolonged for years after an incised gunshot wound, the ball often being found imbedded in the muscle of the heart.' These observations of Dr. Purple in 1885 have been fully substantiated by other observers since that date.

Nutmegs as an emmenagogue.—The powdered nutmeg has long been in repute as a popular emmenagogue, although I have failed to trace it as recommended for this purpose in any standard work on therapeutics. From time to time cases occur where excessive doses have caused very serious symptoms. A series of such cases were recorded in the 'British Medical Journal,' vol. i. 1887. Mr. Simpson ('Lancet,' January 1895, p. 150) reports the case of a patient who had taken two whole nutmegs as an emmenagogue, and suffered from confusion of ideas and delirium with vomiting. A similar case is noted in the 'London Medical Record' for 1885, p. 56, extracted from the 'American Journal of Pharmacy.' All these cases show that in the nutmeg there is a potent alkaloid well worth further examination.

Beer and degeneration of the heart and kidneys.—Dr. Bollinger, director of the Anatomico-pathological Institute in Munich, asserts that it is very rare to find a normal heart and normal kidneys in an adult resident of that city. The reason for the kidney disease is the tax put upon the kidneys by the drinking of excessive amounts of beer, and the cardiac hypertrophy and degeneration are secondary lesions for the most part. Formerly, the population of the city was recruited by accessions from the country, but the abuse of beer has spread now to the rural communities, so that this source of healthy new blood is cut off.¹

Is the view that beer-drinking is alone responsible for the diseases mentioned above correct, or is it not likely that the custom which is so common in England of adding gin or other spirits to the beer may also exist in Munich and have something to do with producing the ill-effects referred to, and especially as regards the diseased kidneys?

Hiccough, is it a symptom or a disease?—Dr. Henry Livien raises this question in the New York 'Medical Record' of January 5, 1895. He describes three cases; one apparently of nervous origin, another from stomach derangement, and a third as follows.

Mr. M., aged 50, met with an accident by being run over in the street, receiving contusions and wounds. Sedatives were required on account of the shock, but no internal injuries could be detected. Local peritonitis occurred on the fifth day. Ice and opium were given, and four days later the patient felt well, but was kept in bed, chiefly on account of an abscess which had formed on the knee.

Three days after discontinuing the opium he was suffering from attacks of hiccough, which followed one another in quick succession. They prevented his eating and sleeping, and therefore the patient became very ex-

¹ New York Medical Record, January 5, 1895.

hausted. Dr. Livien considered that the hiccough did not depend upon gastric disturbance, nor upon any special nervous element in his case.

He goes on to state:—‘I called three times during that day, and nearly exhausted the list of known remedies upon him, with but little effect. Morphine hypodermically would relieve him for a while, but as soon as the narcotic effect passed off the trouble returned with the same severity. Prompt relief was necessary, as my patient was sinking. Eventually I picked up a medical formulary, and finding in its index hiccough, I was too anxious to find the panacea against this dreadful disease. What I found was calomel, recommended by Dr. Gerhard, to be given in $\frac{1}{12}$ grain doses every hour. As I had tried nearly everything but calomel, I hurried to my patient and prescribed this last remedy.

‘I was delighted when the report came that after the fourth dose the trouble stopped entirely—and it did not come back. Where was the seat of the malady in this case, and in what way had the four minute doses of calomel exerted such a happy influence in cutting short this attack?

‘Comparing the three cases reported, I am inclined to believe that besides the typical singultus, which is only a symptom pure and simple, there exists another form of it which is a disease *per se*, the etiology of which is not yet known.’

[In the days when suppuration very frequently followed amputation, hiccough was not uncommon, and I well remember Mr. Alexander Ure having great success in treating this symptom with *Ol. Cajuputi*.—ED.]

The disinfection of tubercle-infected houses.—The ‘British Medical Journal’ of February 16, 1895, continues the report commenced in November 4, 1893, the object being to test the value of the method then used by the municipality of Manchester for disinfecting rooms in which tuberculous patients have lived. Tables of the various experiments are given, and the conclusions which terminate the report are as follows:—

‘Putting aside the numerous experiments which have been made for the purpose of testing (1) the virulence of the tuberculous products used in the experiments, (2) the influence of collateral factors (such as dryness, ventilation, heat, &c.), we may sum up the results obtained in the following way:—

‘(1) The disinfection of rooms which have been contaminated with tuberculous products cannot be obtained by means of the fumigation methods such as are generally used at present. Sulphurous acid, chlorine, and euechlorine, as used under supervision by experienced municipal disinfectors, have proved practically useless. This only confirms the results obtained by Koch and his pupils in the case of a number of other organisms.

‘(2) The only other method of disinfection which seems to promise more satisfactory results is the direct application of a solution of chlorinated lime to the walls to be

disinfected. This method has given, so far, satisfactory results, but is attended with discomfort on the part of those who have to carry out the disinfection. It must be remembered that the experiments of Schill and Fischer are unfavourable to the use of perchloride of mercury.

‘(3) Light is, in the case of the tubercle bacillus, as it has been proved by several observers to be in the case of other organisms, the most important natural disinfecting agent.’

Objections to steam tents in diphtheria.—In the ‘British Medical Journal’ for February 16, 1895, Dr. J. Haddon, of Hawick, mentions what he has found to be the bad effects of steam in the air.

(1) *On the lungs.*—We lose more heat by breathing in dry air than in moist air; therefore, steam in the air will increase the temperature of the body.

(2) *On the skin.*—A moist air prevents the insensible perspiration, and we find it standing in drops on the skin, which tends to prevent loss of heat by the skin.

(3) *On the temperature of the room.*—Where the steam is got from a kettle on the fire, the kettle prevents the heat radiating, and so if set on the fire when the air in the room is heated, the steam will soon saturate it, the excess being deposited in the room; as the heat is prevented radiating, or if the fire gets low, the temperature of the room will fall, and the moisture which the air held falls and covers the whole room, which tends to reduce the temperature still further. Thus an equable temperature cannot be maintained in the room, and as the steam in the air prevents loss of heat, both by the skin and lungs, it must be specially injurious in all bronchial affections.

In laryngeal diphtheria, where we wish to get more oxygen into the little patient’s lungs, what reason can be assigned for putting in steam instead?

Therapeutics

IN February we reviewed Dr. Burney Yeo’s ‘Manual of Medical Treatment,’ vol. i. The following prescriptions are taken from vol. ii. p. 683, under *Additional Formulæ*, at the end of Chapter IV.

For influenza, febrile form :

Quinæ Sulph.	.	.	.	.	30 grains
Extr. Cinchonæ	.	.	.	.	30 „
Extr. Aconiti rad.	.	.	.	.	1½ „
M. et divide in pil. 20. One three times a day.					

(Huchard.)

For influenza, with pulmonary catarrh and inflammation :

Pulv. ipecac. comp.	.	.	.	.	30 grains
Pulv. scillæ	.	.	.	.	30 „
Quinina sulph.	.	.	.	.	30 „
M. et divide in pulv. 20. Four to five daily.					

(Huchard.)

For gastric pain and vomiting in influenza :

Sodii bicarb.	5 grains
Magnesie calcin.	5 „
Bismuthi salicyl.	5 „

M. f. pulv. Three to five daily.

(Huchard.)

As a pulmonary antiseptic, and for relief of headache and muscular pains :

Benzol. pur.	80 minims
Spr. vini rectific.	1 oz.
Tinct. chlorof. comp.	3 drs.
Mucil. tragac.	ad 8 oz.

M. f. mist. A tablespoonful every three hours in lemonade.

(Robertson.)

Treatment of croupous pneumonia.—In the Bulgarian 'Meditizna' (No. 4, 1894, p. 20), Dr. G. Ivanov, senior physician to the Lomskata Bolnitsa (=Lom Hospital), highly eulogises the treatment of croupous pneumonia by the internal administration of camphor with antipyrin, his formula being as follows :

Camphoræ pulver.	0·5 gramme
Antipyrin	2·0 grammes
Morphii hydrochlorici	0·02 gramme
Sacchari	9·5 grammes

M. f. pulv. D.S. To give one quarter of the powder every one or two hours.

In adynamic cases he simultaneously resorts to hypodermic injections of camphor, from 0·05 to 0·1, from three to five times a day. The drug is employed in the form of *oleum camphoratum* (0·5 of camphor to 0·1 of olive oil). In pneumonia of habitual drunkards Dr. Ivanov prescribes, as an adjuvant, 'Tood's potion (*Toodovoto pitivë*),' while in plethoric cases he orders wet-cupping.—*Prov. Med. Jour.* February 1895.

Æsculap bitter water.—This natural aperient water is coming into very general use in consequence of its efficiency, and because it is less nauseous than many other saline aperients. We therefore give an analysis made by Professor Johann Molnar, Government Analyst, Buda-Pest.

SALTS IN 10,000 PARTS OF WATER.

Sulphate of potassium	0·104
Sulphate of ammonium	0·061
Sulphate of sodium	139·063
Sulphate of magnesium	172·805
Sulphate of calcium	20·788
Chloride of sodium	29·047
Carbonate of sodium	9·989
Carbonate of iron	0·097
Carbonate of manganese	0·429
Alumina	0·349
Silicic acid	0·092

372·824

We are informed that the bottling of this water is carried out entirely under the superintendence of the English manager, who is scrupulously particular regarding cleanliness of the bottles.

Chlorhydrate of phenocolle in malaria.—Dr. Ribet, in the 'Revue de Thérapeutique Médico-Chirurgicale,' writes on the virtues of chlorhydrate of phenocolle (amidacet-para-phénétidine) in cases of malaria. He publishes nineteen cases in which he has seen excellent results following the administration of this drug. The dose for an adult is from 20 to 30 grains; for a child between four and ten years of age, from 7 to 12 grains. It can be given either in cachets or in a mixture, by preference in the latter form. It should be given in fractions, from five to three hours before the time of the onset of the paroxysm, and must be continued for six or seven days after the pyrexia has ceased. In most cases the action was rapid, the attacks being cut short in less than a week. The drug is eliminated by the kidneys, and gives a dark colour to the urine.

It is a white crystalline powder, neutral, and is soluble in seventeen parts of cold water. It has a bitter-sweet taste, which is not disagreeable. Prof. Albertoni, of Bologna, was the first to advocate the drug, and published the beneficent results he had obtained from its use.

The preparation of bone-marrow recommended by Dr. A. G. Barrs.—Three ounces of fresh bone-marrow (as much red as possible) are made up into a paste, with port wine one ounce, glycerine one ounce, and gelatine five drachms. A little care is required in making the paste, to keep the gelatine and the marrow sufficiently fluid for them to be thoroughly mixed. The gelatine should be soaked in sufficient water to soften it, and then should be melted with the glycerine, the mixture being kept in a mortar previously made hot with boiling water, while in another mortar, made hot in a similar manner, the marrow and wine are mixed. Then the contents of the two mortars should be thoroughly incorporated and allowed to set. The hospital butcher seems to have no difficulty in supplying the marrow free from bone spicules.

Health and Holiday Resorts

HOLLAND

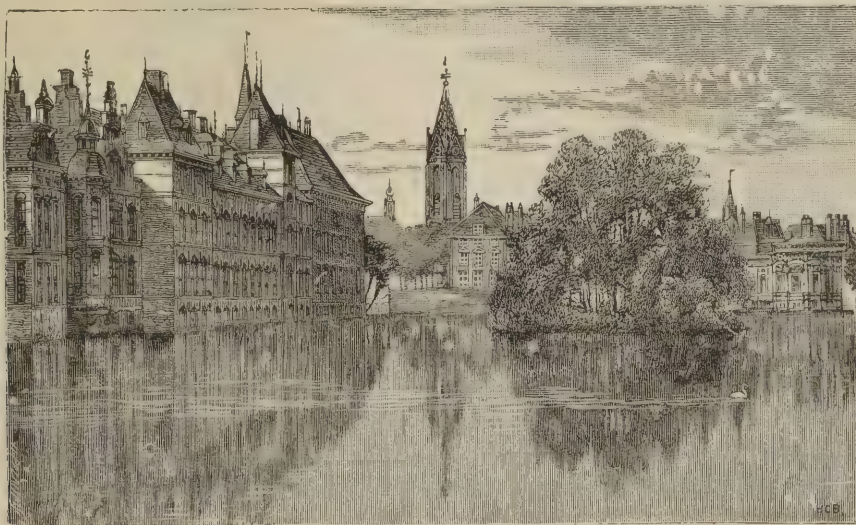
[The illustrations of this paper are from 'Walks in Holland,' by Percy Lindley.]

ALTHOUGH Holland is not generally classed among the Health Resorts, it is nevertheless a very interesting place for the tired-out doctor to go to for a holiday, and in the writer's opinion the best way to restore a jaded nervous system is for the sufferer to go where he can best enjoy himself and where he is most likely to get refreshment for his mind, rather than select a spot, where he will feel bored and unoccupied, simply because the climate is perfect and the air most pure.

With these views we selected Holland, the land with which the traditions of this country are so closely associated, the land of industry, of patience, of quaintness, of invention, and of art. The characteristics of the country are known to every one, but we may perhaps quote the words of Thomas Purnell with advantage: 'The artist, the agriculturist, and the engineer will everywhere find something to startle him with pleasure. Nowhere else in the world can such pictures be seen as those in the galleries of the Hague and Amsterdam, and it is only under Dutch skies that they can be seen to perfection. The Dutch

less to say that, out of Holland, nothing of the sort is to be seen.'

The Route.—We started from Liverpool station one autumn evening at 8, arrived at Harwich at 9.30, and left there by one of the Great Eastern Railway's boats soon after. We had secured a deck cabin, and would strongly advise this course to those who value comfort. After a good night's journey, we reached Rotterdam at 9 on the following morning, but took care to wake up early to see the sun rise, and enjoy the scenery of the quiet Maas, getting a comfortable breakfast on board at leisure.



THE VIJVER, AT THE HAGUE.

sky is in itself something to marvel at, and once having seen it one will not be surprised that the Dutch masters were great colourists. Then there are the towns—Amsterdam, and Rotterdam, and the Hague, and Leyden, and Haarlem, and Delft, and



NEAR DELFT.

Broek, and Dort, and Utrecht, and Kampen, and the Dead Cities that dot the famous Zuyder Zee. Each of these in itself is an object worth a visit. Of the dykes, and dunes, and canals, and polders, it is need-

Rotterdam is a most interesting old town, but we do not recommend the tourist to make this his centre. If his stay is, like ours, a week or ten days, he should go directly to the Hague, a quiet, stately old town, and from thence make his journeys to other districts.

We cannot, of course, pretend to give a description of the many peculiarities of Holland, except to remark that the features which struck us most were the neatness of the gardens before the houses, the curious architecture, and the quaintness in appearance of everything.

In the country the flatness of the land is relieved by the picturesque windmills, the canals, the constant accompaniment of the universally black and white cows, and the solitary storks.

On our journey from Rotterdam we passed by Delft, 'the parent of pottery,' and arriving at the Hague we put up in very comfortable quarters at the Hotel Bellevue. This hotel overlooks the park and

comparatively clean canal, and all the principal servants speak English.

A noticeable feature at the Hague, of which we give an illustration, is the Vijver, a sheet of water situated in the middle of the town ornamented with an island and some swans; the water being kept in motion by artificial means.

On the S.E. side of the Vijver is the gallery in which so many celebrated pictures by Rembrandt, Paul Potter, Jan Steen, and many other Dutch artists are to be seen. The 'School of Anatomy' by Rembrandt, of which a copy will be given in the next issue, is in this gallery.

In front of the Bellevue Hotel passes the steam tramway, which will very quickly take the visitor to Scheveningen. This place is less than three miles from the Hague, and should certainly be visited. It is called a fishing village, but it seems chiefly to be used as a place of recreation by people from the Hague, and especially by visitors. The shore is composed of high mounds of sand called dunes. There is a large hall for public entertainments close to the shore, the latter being covered in the summer with quaint hooded chairs made of rush.

From the Hague the visitor should go to Amsterdam, and if he intends to stop there he should go to the Amstel Hotel. It is certainly some distance from the centre of the town, but, considering the foulness of the canals, this is rather an advantage than otherwise.

The Ryks museum is an object of the greatest interest, and really requires several days to get even a glance at most of the contents. We will only mention the Rembrandt Room, which is a marvellous sight. The enormous pictures are very imposing. There we find Rembrandt's 'Night Watch' and several other of his corporation paintings.

If the visitor is taking but a short trip, he may add Haarlem and Leyden, and then he will get a very good idea of central Holland.

It must not be forgotten that Holland is a malarial country, and although great improvement has taken place in recent years with regard to the drainage and the movement of water in the canals, yet caution is necessary. Sitting out of doors or having the windows open in the evening should be avoided. It is often said that the canals are now quite sweet, but this is not our experience, and in Amsterdam especially they seem to be chiefly open drains. The roads by their side, in fact, are not much used by pedestrians, all the traffic of this kind taking place in side streets.

Rotterdam is bad enough in this respect, but we did not meet such absolutely forbidding smells as at Amsterdam. Haarlem and Leyden are much better, and the Hague is fairly unobjectionable, except in very hot oppressive weather.

We reserved our exploration of Rotterdam for our return journey. This town is essentially a busy place, not only about the docks but in the markets



ROTTERDAM.

and streets. It is not a place for sight-seeing, beyond observing its appearance as a great commercial port and the peculiarities of the busy people.

After a capital dinner at a restaurant, we left by the 6.30 P.M. Harwich boat, obtaining a fairly good cabin for our night's voyage.

For those who can take an interest in the quaintness of Holland, and who can enjoy the many art treasures which it contains, we strongly recommend this trip. It can be so comfortably and easily managed, and at a very moderate cost. The change from the ordinary Continental holiday is great, and, as we urged at the outset, it gives refreshment to the mind.

Hotels and Restaurants.—At Rotterdam the Hotel Weimar and Hôtel de France are considered to be good, and one of the best and moderately priced restaurants is the Restaurant Stroomberg, 26 West-nieuwland.

At the Hague we found the Hotel Bellevue very comfortable, but obtained some good meals at the Restaurant Café Central. The visitor must not expect, however, very fine cooking in Holland. The best meal we obtained was at a French restaurant at Amsterdam, called, if we remember rightly, the Café Riche. Here everything was perfect, but the price was not small.

Holland is a large place to describe in such a short article, but our object is to call attention in general terms to a country which provides more sub-



AN OLD CORNER IN ROTTERDAM.

jects of interest than do the more commonly frequented Continental districts which are visited by medical men in order to recover their health and strength.

Veterinary Notes

Canadian Timothy hay.—At the time when English hay was at a very high price this product from Canada was introduced into this country, and used to a very large extent.

At the time we refer to good English hay could not be purchased at less than from 8*l.* to 10*l.* per ton; whereas the Canadian could be obtained at from 5*l.* to 6*l.*, and large firms in London who were using a great deal of hay were forced to purchase in the cheaper market.

At the present moment English hay is cheaper, if anything, than the Canadian. However, prices may vary again, and the question is often asked as to the relative merits of the two products.

We have taken the opinion of one of the largest firms

of jobmasters in London. They have used Canadian hay to a very great extent, and are still in favour of good English hay when the price is about equal. Horses seem to prefer the Canadian, but this must not be taken as proof that it is best. We were present at an experiment to try this point. Six horses were given simultaneously a handful of the best English hay and a handful of Canadian Timothy hay at opposite corners of their mangers, and in every instance the animal took the Canadian in preference to the other.

Thinking it possible that the horses were accustomed to being fed with hay at one particular corner, at our suggestion the two sorts were reversed, but again the horses went to the Canadian.

As regards its sustaining qualities, we have also the opinion of a very experienced owner of foxhounds and racehorses in this country, who, although a great friend to the English farmers, still considers that Canadian hay is superior in this respect.

Upon the other hand, we have met with some very good authorities, who are certainly younger men, but who have, perhaps, more immediately to do with the feeding of horses, who say that they prefer good old English hay; and for ourselves, with much less experience, we have thought that hunters have done better upon the latter.

The consensus of opinion seems to be in favour of English hay when it can be obtained at the same price, but in times of great dearth, as happened recently, the Canadian material can be accepted as a remarkably good substitute for English hay.

We have every wish to encourage the English farmer, and as matters stand we do not think he is likely to be harmed by foreign competition in this matter.

When English hay is as scarce as it was two years ago, the farmer would probably benefit as much as anyone else by the purchase of the colonial product.

Aluminium shoes.—If the weight of horses' shoes could be lessened without any deterring influences, there would undoubtedly be less strain upon the legs, and we have for some time thought that aluminium might be brought into use for this purpose.

Upon making inquiries upon this subject, we find that an experiment has already been tried in Egypt, and Mr. W. Littlewood, M.R.C.V.S., of Cairo, has communicated the results of this trial to the 'Veterinary Journal' for January, 1895, as follows:—

The following horses were shod with aluminium shoes during the month of May, 1893, under the supervision of Mr. Charman, who instructs native farriers, and is in charge of the shoeing of the Egyptian Government animals.

Horses Nos. 1 and 2, doing ordinary hack and driving work, wore out the shoes in fourteen days; in one case a shoe was broken at the nail-holes in seven days.

Horse No. 3, ridden by an orderly (police), doing hard, and at times fast, work, wore out its shoes in eleven days.

Horses Nos. 3 and 4, doing police patrol, wore out their shoes in sixteen and eighteen days respectively.

Horse No. 5, doing very easy patrol (police), wore out its shoes in thirty-one days.

Horse No. 6, doing transport work (police), wore out its shoes in twenty days.

Horses 1, 2, 3, 4, and 5 were working on macadamised roads in Cairo; horse No. 6 was working on paved streets in Alexandria.

Those horses shod with machine-made shoes (British Army pattern) rarely required a new shoe before a month, except in case of casting a shoe; in some cases the shoes are removed at end of month, and again nailed on.

The advantages of aluminium shoes are their lightness and that they will never be cast, except they break at the nail-holes.

The disadvantages are their cost (in Egypt), about 7s. per set, the shoes at present in use (British Army pattern) costing 1s. 5d. per set; aluminium is too soft, spreading over the sides of the hoofs after a few days' wear; and in horses with close action they cause brushing.

The Nurses' Column

The certification of midwives.—In our January issue we referred to the action of the General Medical Council with regard to the so-called diplomas issued by the London Obstetrical Society and other bodies to midwives, and since then some very strong opinions have been expressed upon the subject.

In matters of controversy it generally happens that extreme views are taken on both sides, and we cannot help thinking that such is the case with regard to this subject.

The nurses who practise midwifery are an old-standing institution, and it is quite evident that in the present state of the matter it would be impossible for the poor to do without them.

What the midwives seem to dread is an interference to their having any 'certificates of competence' at all. We take it that this is not the object of the Medical Council. It is, in the words of their resolution, 'the colourable imitation of diplomas' that they discountenance.

When we look at these certificates, they certainly have a rather pretentious appearance, and in the hands of unprincipled midwives might be passed off as diplomas of a medical character, seeming to certify that the possessor has full knowledge of the whole subject of midwifery. This, surely, is not wished for by any respectable midwife, and one would think that some compromise in the matter of certificates might easily be arrived at.

In considering the subject of midwives, we hope the day will come when it will be the universal custom, or the law, for every parturient woman at the commencement of her labour to be seen by a qualified medical practitioner, and then, if the symptoms are those of natural parturition, the further conduct of the case might, if desired, be left to a certificated midwife, with the understanding that, should complications arise, she should summon the doctor.

Reviews

Diseases of the Nose and Throat. By F. DE HAVILLAND HALL, M.D., F.R.C.P. Lond., Physician of Out-patients, and in charge of the Throat Department of the Westminster Hospital, Joint Lecturer on the Principles and Practice of Medicine at the Westminster Hospital Medical School. With 2 coloured plates and 59 illustrations. Crown 8vo, 10s. 6d. (London: H. K. Lewis.)

Dr. De Havilland Hall has the reputation of possessing the combined qualities of the eminently practical and the highly scientific physician, and therefore we look for, and find, a very useful and reliable volume upon the special subject of which he has charge at the Westminster Hospital.

It is essentially from the physician's point of view that Dr. Hall writes, but yet he thoroughly recognises the necessity of the surgeon in the treatment of many of the affections with which he deals.

We will take as our subject for illustration *Adenoid Vegetations*. After describing the etiology, the morbid anatomy and pathology, the symptoms and diagnosis, he deals with prognosis.

'The harmful effect of leaving the nasopharynx blocked up with these growths is so certain, and the success attending their removal so great, that an operation can confidently be advised. If the vegetations are thoroughly removed under an anæsthetic, there is no likelihood of a recurrence; when this seems to occur, it is generally due to the growth having been imperfectly removed, and the portions left behind sprouting afresh. There is some ground for believing that the presence of adenoid vegetations increases the risk of catching the acute specific diseases, and still more for the view that they are a potent cause of ear trouble in measles and scarlet fever.'

Dr. Hall next describes the treatment. 'Early and radical treatment of these growths is indicated in cases in which earache, discharge from the ears, or deafness, is present. Prompt measures should also be taken if the child suffer from laryngismus or other convulsive affections, if there be a tendency to catarrhal affections of the larynx and bronchi, and, finally, if the general health of the child be suffering, as shown by anæmia, loss of appe-

tite, &c. If there are no very urgent symptoms, it is wise to postpone the operation until after the sixth year. I have seen the best results in patients who have been operated on about the eighth year. As far as possible, I recommend that the operation should be done in the summer time.' He then proceeds to describe the necessary operations, giving illustrations of the forceps and other instruments required.

The illustrations consist of two coloured plates—(1) The larynx during inspiration, (2) The larynx during phonation—and 59 woodcuts, the latter including a large proportion of instruments.

The following are figures which represent various diseased conditions of the vocal chords :—

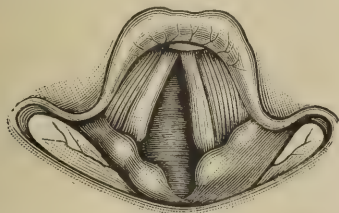


FIG. 56.—COMPLETE PARALYSIS OF LEFT RECURRENT. INSPIRATION.

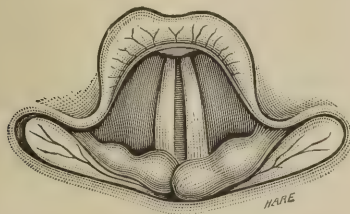


FIG. 57.—COMPLETE PARALYSIS OF LEFT RECURRENT. PHONATION.

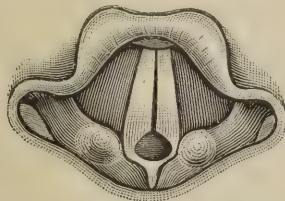


FIG. 58.—PARALYSIS OF ARYTENOIDEUS.

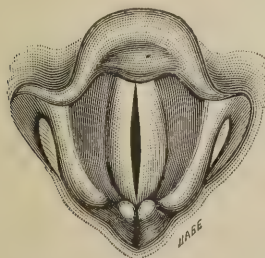


FIG. 59.—PARALYSIS OF THYRO-ARYTENOIDEUS.

We cordially recommend this volume to the general practitioner and the student.

A Handbook of the Diseases of the Eye and their Treatment. By HENRY R. SWANZY, A.M., M.B., F.R.C.S.I., Surgeon to the National Eye and Ear Infirmary, and Ophthalmic Surgeon to the Adelaide Hospital, Dublin. 5th edition. Edited, under the supervision of the author, by LOUIS WERNER, M.B., B.Ch., Assistant-Surgeon National Eye and Ear Infirmary, and Ophthalmic Surgeon to the Mater Misericordie Hospital, Dublin; Examiner in Ophthalmic Surgery in the University of Dublin, and in the Royal University of Ireland. Pages 582, size 8vo, price 10s. 6d. (London: H. K. Lewis.)

The fifth edition of Dr. Swanzy's well-known work quite maintains its reputation as a standard work by an eminent ophthalmic surgeon.

The book is larger than the former edition by forty-four pages, and amongst the additions are descriptions of the astigmometer and its use, of the effects of electric light on the eyes, of scintillating scotoma, of ophthalmia nodosa, and of enophthalmos.

The **astigmometer** is described as one of the most rapid and satisfactory methods of determining both the degree of astigmatism and the position of the meridians of greatest and least refraction. It is based on the principle of the ophthalmometer, an instrument by which Helmholtz demonstrated the changes in the curvature of the lens during accommodation.

In order to measure the degree of astigmatism by it we do not require to know the radius of curvature of the cornea, but merely to find out the difference in refractive power between the meridians of greatest and least curvature.

The astigmometer consists (see fig. 1) of a telescope, *p*, containing a double refracting prism between the object-glasses, and two reflectors, *k* and *l*, which are movable on

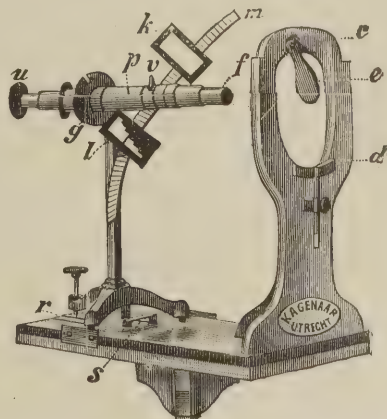


FIG. 1.

(The stand is not shown.)

an arc, *m*, which is fixed to the telescope tube. The latter turns on its own axis, and enables the arc to be placed in any meridian, its position being indicated on a graduated

circle, *g*. The patient places his chin on the rest *d*, and looks into the tube at *f*, the eye which is not under observation being covered by the disc *e*. The surgeon then looks through the telescope at *u*, turns the arc *m* into a horizontal position, and observes the corneal images of the reflectors, which he gets into focus. He then moves the reflectors until the central images just come into contact; the four images will then occupy the relative positions shown in fig. 2.

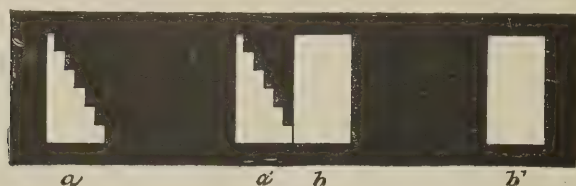


FIG. 2.

The arc is then rotated into the vertical meridian, and if the curvature of the cornea be the same as before, the central images will still appear to be in contact. But if the radius of curvature be smaller, the intervals *a* to *b* and *a'* to *b'* will diminish, and consequently the central images will overlap as in fig. 3, each step of *a'* represent-



FIG. 3.

ing a difference of 1 dioptry. So that in this case there would be an astigmatism of 2 D. And the greatest refraction would be in the vertical meridian.

The effect of electric light on the eyes.—The author states: 'The degree of intensity of light required to produce injurious effects on the eye is not known, but this much is certain, that no bad results have been observed from the use of the incandescent light.¹ Two groups of symptoms are observed from the action of a strong electric light on the eyes:—

(a) *Electric ophthalmia*.—This has been chiefly seen in those employed in electric-welding operations, and less frequently in electricians who use strong arc-light.² The symptoms begin shortly after exposure to the light, always within twenty-four hours, and are the same as those present in snow-blindness; the lids also are swollen, and even erythematous at times. The pupils are contracted. A slight muco-purulent secretion from the conjunctiva

¹ Hartridge, *Brit. Med. Jour.* Feb. 1892, p. 382.

² Hewetson, *Brit. Med. Jour.* June 1893, p. 1315. Berger (*loc. cit.*), p. 435.

appears after the subsidence of the above symptoms. Recovery takes place in a few days, with complete restoration of vision, except in rare cases.

(b) *Blinding of the retina*.—This is the same affection as blinding of the retina by sunlight. The central scotoma may persist after an attack of electric ophthalmia, or may occur without it. The injurious action of the electric light on the eye has been attributed to the chemical action of the ultra-violet rays, to the accompanying heat rays, and to dazzling of the retina. Widmark's experiments show that changes can be produced in the retina by the electric light without any heat coagulation. The changes consist in oedema, with more or less destruction of the nervous elements of the retina, namely, the outer layers, including the rods and cones, and the inner layer of nerve fibres.

Treatment.—The preventive treatment consists in the use of coloured glasses. Yellow glass has been recommended by Maklakoff. In the electric-welding works in Germany a combination of deep blue and red is used, while the Sheffield workers prefer several layers of ruby glass.

The author then describes the advantages to the eyes by using incandescent electric light.

Transitory hemianopsia.—This condition is closely associated with migraine, and is said to occur most frequently in intellectually active individuals. The treatment should be directed chiefly to the cause of the migraine.

The book closes with a few lines upon **enophthalmos**, or sinking of the eye back into the orbit, as occurring in extreme emaciation, in Asiatic cholera, in paralysis of the sympathetic, and in facial hemiatrophy, and as a result of injury, in the latter condition it being probably due to fracture or depression of a portion of the orbital wall.

The Medical Annual and Practitioner's Index, 1895. 6s. (Bristol: John Wright & Co. London: Simpkin, Marshall, Hamilton, Kent & Co.)

This very useful publication has now reached its thirteenth year, and has not only grown in size, but has greatly increased in value. The long list of editors and contributors includes names which are an assurance of good work.

It is one thing to compile an annual of this kind and to give a great deal of material, and it is another to so concentrate and arrange that material that it is useful without being cumbrous, that it gives the information required without being loaded with extraneous matter. To review the volume before us fully would take far more space than we can afford, nor ought it to be necessary to do more than highly commend such a work, for undoubtedly every medical man would do well to possess a copy.

CLINICAL SKETCHES

APRIL 1895

Malaria and other Tropical Diseases in England



VALUABLE address was given by Dr. Patrick Manson before the Hunterian Society on February 13. The address was fully illustrated by numerous specimens, both fresh and stained, of the malaria micro-organism, those of the crescentic

and of the flagellated forms of the parasite being particularly well displayed.

If we in England enjoy almost complete immunity from malarial disease, it is far otherwise in many parts of Europe, and in tropical and sub-tropical countries. Our countrymen abroad are continually being victimised by it, and it yearly claims millions of fellow-subjects in India and elsewhere. The malaria germ, therefore, is no scientific plaything, but a terrible reality, well worth serious attention.

It is certainly the greatest physical obstacle to the spread of civilisation. It is much more terrible in the aggregate than tubercle, but it is hard for stay-at-home Englishmen to realise this.

Of 187 millions in British India in 1879 there was a mortality of about five millions. Of these five millions, three and a half millions died of fevers of various descriptions, and one half of the latter from malarial fever; that is to say, six times as many died from malaria as from cholera.

Malaria is the only important disease affecting man which has been traced with certainty to a protozoal organism.

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Dr. Manson then described the microscopical appearances found in the blood in malarial disease.

Laveran was the discoverer of the parasite of malarial fever. In 1883 nobody seemed to know anything about it in England, or to bother about it. In England absence of instruction in important tropical diseases, notwithstanding the presence of abundant material, is not confined to the subject of malaria.

The student who proposes to enter the Army or Navy or the colonial services, or to become a medical missionary, or private practitioner in some tropical country, has no opportunity of learning, in any hospital or elsewhere, anything about the principal diseases he will be presently called upon to treat.

The doctor who goes to the British Colonies may find himself in a tropical wilderness, amongst strange diseases and strange people, and is told to practise. It is a great problem that he has to deal with.

Upon a plantation to which Dr. Manson referred there were employed on an average 688 coolies. Of these 185 died in six months, a mortality considerably in excess of 500 per thousand per annum. The causes of death were diarrhoea and dysentery, 85; beriberi, 68; malarial fever, 12; opium starvation, 5; suicide, 3; not stated, 12.

This is an example of how a young and comparatively inexperienced medical man may have to deal with a large number of diseases of which he knows little or nothing.

Plenty of malarial cases can be found in the neighbourhood of the docks, also cases of beriberi and dysentery, and other tropical fluxes, liver abscess, Mediterranean fever, ankylostomiasis, filariasis, and other exotic diseases.

This valuable clinical material is running to waste; whereas, it might easily be utilised for teaching purposes. There is, says Dr. Manson, no place in the world, perhaps, where so great a variety of tropical diseases can be seen as in London. It is a disgrace to us, as the leading tropical Power, that we close our eyes to our duties and interests, and that we make so little use of the unsurpassed opportunities lying at our very door.

Of the 32,590 medical practitioners in Churchill's Directory, more than one-sixth—that is 5,773—are resident abroad, or are in the Navy or Army, the vast majority of them either in tropical countries or liable at any time to be sent to such countries. Yet, notwithstanding their numbers, notwithstanding their crying educational needs, practically nothing is done to qualify this large section of the medical profession for its special work in tropical countries. As a body these 5,000 to 6,000 men are not organised—they cannot, for geographical reasons, well be so; they have no special way whereby to make their wants known; as a body they are not represented on the Medical Council; they have no voice in arranging the curriculum nor in influencing it in favour of their successors. This great helpless, headless, voiceless mass of medical men requires organisation of some sort, requires some way of expressing its peculiar needs, and getting them attended to. Perhaps in the future some sort of organisation with this object in view may be arrived at. Meanwhile, as it does not exist, it is surely the duty of someone, or some body, to look after the necessities of so large a section of the profession.

'If ever,' says Dr. Manson, 'such an organisation as I hint at be effected, one of its first demands will certainly be for improved instruction in tropical diseases. In the absence of this organisation the custodians of the public interests—the teachers of medicine and the graduating bodies—should take care that this want is recognised and also supplied. There is, at present, great reluctance to add further burdens to the already overweighted student. But, if he is overburdened, so much greater should be the care that these burdens are properly proportioned to his future requirements. A few demonstrations—the demonstration of the actual diseases, and of the actual causes of these diseases—would really lighten his burden, inasmuch as a thing seen is always more easily understood and remembered than a thing vaguely described. I am not prepared to make any practical suggestions in this matter, but one which I

saw in a recent number of the "British Medical Journal" seems to be worth considering; and that was that the examining bodies should put at least one question on tropical disease in their examination papers in medicine. On the principle of demand and supply, the knowledge on the part of the student that such a question should be asked of him would lead him to require the necessary instruction from his teachers.

'It is a difficult thing to interest people in what does not concern them very directly, and I fear that, partly on this account, these remarks of mine on the malaria organism, and on the subjects it has led me up to, may have fallen somewhat flat on my audience. I always feel a sort of compassion for a microbe which is not English. It seems to be out in the cold, as it were. But this microbe of malaria is a living and actual thing, all the same, and as such demands the attention, not only of the scientific biologist and pathologist, but of the practical physician, just as much as any indigenous bacterium, more particularly as it happens to be the germ of the greatest disease scourge afflicting mankind.

'If I have succeeded this evening in convincing some of you of the need of improved teaching in connection with malaria, as well as of other diseases of tropical climates, the little trouble I have had in bringing these words and materials together, and in telling you something about them, and in showing you something of the malaria parasite, may not have been altogether in vain.'

NOTES BY THE EDITOR

One of my contemporaries has remarked upon the adoption of the personal element in these notes. He does not absolutely find fault, but seems to throw doubt upon its appropriateness in a medical journal, being, he thinks, more suited to such publications as 'Truth' and 'The World.'

The matter seems to me perfectly simple. In the conduct of any periodical of this kind, articles appear which should be ranged under the editorial 'we,' as being written either by other hands than that of the editor, or, if written by the latter, being supervised by someone who possesses special knowledge of the subject dealt with. Matters which the editor takes under his own special care, and for which he alone is responsible, should, I think, appear as his work alone, and it is a matter of almost common honesty to have

the courage of one's own opinions, and not to find refuge under a plural pronoun.

Critics may talk about the egotism of 'I,' but they should remember that even 'we' is not free from the accusation of arrogance. The only other person besides an editor who has ever assumed the plural is the sovereign of a country. King John of England is said to have originated this manner of expression in 1200 A.D., and to have been followed by the sovereigns of Germany and France. For myself I cannot see any valid objection to the personal method of expression.

I would again call attention to the prize offered to students for a well-reported clinical case illustrated by drawings or photographs, the particulars of which are described on page iv of the advertisement sheets.

I should be glad to see greater encouragement given to students to cultivate that habit of drawing which Mr. Teale so well advocated in his paper which appeared in the March number of this Journal. One of the strongest advocates for this method of clinical note-taking in my student's days was Dr. Sibson. No one could be more painstaking in his methods of diagnosis, and he always followed out his inquiries most assiduously in the *post-mortem* room upon those of his patients who died.

Sibson seldom made a mistake in diagnosis, either as to the pathological condition of his patients or as to their approaching end. It was proverbial at St. Mary's that when he, always kind in manner, shook hands with a patient, he never again saw that patient alive.

The late Dr. Sutton was another eminent physician who greatly estimated the value of the pencil, and, like Sibson, he would correctly diagnose the approaching death of his 'subject.' When some interesting 'case' was approaching the time for a visit to the *post-mortem* room, Sutton would map out on the patient's body with chalks or ink the various points of pathological changes for verification after death. A story is told of him that upon one occasion he had taken great pains in following out this artistic custom, and had passed on to other work. The occupant of the bed next to the 'case' who had been illustrated—a paralytic who had been long in the hospital—raised himself with difficulty on his elbows, and, leaning over to his neighbour, exclaimed:

'I say, what's he been a-doing to you?'

'Why,' said the 'case,' 'he's been a-drawing all over my body.'

'Well,' said No. 2, 'if I was you I'd get up and bolt, 'cause all those he draws on, they dies!'

In the review of Dr. Swanzy's work on 'Diseases of the Eye' given in the March number I was glad to read the note by the author upon the *effect of electric light upon the eyes*. Dr. Swanzy remarks that 'no bad results have been observed from the use of the incandescent light,' and he is supported in this view by so careful and reliable a worker in scientific ophthalmology as Hartridge.

The question of the best artificial light has always been one of great interest to me. For those who like strong light ordinary gas becomes very oppressive, but they will find the incandescent gas-light a great boon, notwithstanding the frequent breaking of the mantles, but far better is the electric light, the value and comfort of which can hardly be overestimated.

It is not necessary, in the present day, to urge the advantages to health of the electric light, for its coolness, its purity, and its steadiness are known to everyone. The questions which are yet asked are as to its influence upon the sight, and its cost.

The former question is, I think, already answered by Dr. Swanzy and Mr. Hartridge.

As regards the cost, I have found it economical. The cost of installation depends upon a variety of circumstances, and especially upon the views of the consumer as regards fittings.

The cost of the light is certainly at present rather more than gas, perhaps 25 per cent., but it is far more easy to economise electric light than gas. The ease with which it is turned on and off enables us to save a great deal, and as regards cleanliness of walls and ceilings, furniture, pictures &c. the difference between the effects of electric light and gas is very great.

I am having an article prepared describing these matters in detail, which I propose to publish in this Journal before long.

Just now considerable alarm is being felt regarding explosions in the streets in connection with electric lighting. Various explanations have been given, but

there is one fact which has hardly, I think, received sufficient prominence. I refer to the very general escape which takes place from gas main pipes.

I know of one instance in which, when the electric light was being laid on, the opening into the cellar through which the electric main entered was not closed up for some days, and so much gas escaped from this place that it entered the house in alarming quantity. The gas company was communicated with, and several openings were made along the street to discover the point of escape. In this the workmen were not successful, and they assured the owner of the house that it was a matter of little or no consequence, as it was very commonly the case and generally impossible (?) to find out where the leak was, but that when the opening in the cellar was closed up the nuisance would cease.

The complainant had to content himself with this result, but surrounding the electric light mains a body of gas still exists, and should any accidental short circuit be formed in the mains an explosion may occur.

Surely this is all wrong, and it seems to me that the gas companies ought to prevent leakage quite as carefully as the electric light companies.

As things are at present, the prevention of explosions depends chiefly or entirely upon the patency of the electric light mains, for the gas mains are always leaking.

I am glad to be able in this issue to give the illustration of Rembrandt's picture which I have referred to more than once before, and which was put aside for the purpose of publishing the late Mr. Hulke's portrait. This plate has, I think, been produced in a most perfect manner. The original engraving by Cornilliet, from which it was copied, was lent me for the purpose by Dr. Fancourt Barnes.

A department of Public Health will be commenced in this Journal in May. It will be under the editorship of a well-known Medical Officer of Health.

A scheme has been organised at Cambridge which promises to be of very great service to those practi-

tioners who are enabled to make use of it. It is proposed to hold a sort of congress from July 1 to July 6 inclusive. It is to be called the Cambridge Summer School of Medicine for qualified practitioners, and is to consist of clinical demonstrations in the Laboratories and in the Museum of the University and at Addenbrooke Hospital.

A certain amount of pleasure is to be added to the work of the meeting, such as conversaziones and a garden party, and accommodation in the College will be provided for those who apply early.

The names of Professors Sir George Humphry, Macalister, Bradbury, Foster, and Roy, and Drs. Anningson, Griffiths, and Norman Moore in association with this movement give promise of unanimity and success. The Secretary is Dr. Joseph Griffiths.

Original Papers

CASES OF OVARIAN TUMOUR COMPLICATING PREGNANCY

UNDER THE CARE OF WILLIAM DUNCAN, M.D.

Senior Obstetric Physician to the Middlesex Hospital; Physician to the Chelsea Hospital for Women.

CASE 1.—Ovarian cyst ruptured during vaginal examination: immediate abdominal section: abortion: recovery. **History.**—Mrs. H. ætat. 30, married twelve years, has had six children (the last 2½ years ago), five miscarriages, the last in May 1894. She attended the hospital on October 5, 1894, complaining of a profuse yellow discharge and severe 'bearing down' pains for the last month. Catamenia began at 18. Had only one slight period before marriage and one of a week's duration after marriage, when she became pregnant.

First confinement was severe, labour lasting two days. Perinæum was torn. Second confinement (1 year 10 months later) also lasted two days. Last confinement took place in February 1892. She remained in bed five weeks owing to free loss of blood, which was sometimes offensive. Her next two periods were very profuse, after which pregnancy occurred, and she aborted at the ninth week. Second abortion took place two months after the first, and a third at the end of 1892. The last miscarriage was early in May 1894, when four months pregnant. Cannot account for the miscarriages.

Examination.—October 5, 1894. The patient was examined in the out-patient room of the resident medical officer (Mr. Bellamy Gardner) at 4 P.M. The abdomen was rather distended, and on palpation there could be felt a firm elastic smooth swelling extending halfway up to the umbilicus and deflected somewhat to the left of the middle line. The tumour was mobile.

Rupture of cyst and operation.—Per vaginam, a fluctuating elastic swelling about the size of a cocoanut can be felt filling up the pouch of Douglas, and pushing the uterus forwards and upwards. The patient was recommended to come into the hospital. In the temporary absence of the resident medical officer (who was called up into the wards) the patient was examined per vaginam by a clinical assistant, who (although no great force was used) said he felt 'something suddenly give way.' The resident medical officer found the patient in severe pain, somewhat collapsed, and with a small rapid pulse. On examining per vaginam he could find no trace of the cyst. A sixth of a grain of morphia was given subcutaneously, the patient carefully transferred to bed, and Dr. Duncan sent for. On his arrival at 5.45 P.M. the pulse was still rapid and the pain continued, but beyond some slight dulness in the flanks nothing definite could be made out, except that the uterus was enlarged. No cyst could be felt. Being satisfied that the resident medical officer found a cyst on first examining the patient, Dr. Duncan at once performed abdominal section. On opening the peritoneum a clear watery fluid gushed out, and there was about a pint of it in the peritoneal cavity. The uterus enlarged to the size of a two months pregnancy presented. The left ovary and tube were found healthy, but on the right side a collapsed ovarian cyst existed (with remains of solid ovarian tissue in its walls) showing a rupture about $1\frac{1}{2}$ inches in length along its inferior surface, where the wall was extremely thin. The ovary and tube were removed in the ordinary way. The peritoneal cavity was sponged and then the abdomen closed with silk sutures and the wound dressed.

The operation lasted thirty-five minutes. The patient took the ether well, and although she had had a hearty dinner four hours previously there was no sickness.

After-treatment and results.—October 6th. Temperature 99.8° ; pulse 90. No sickness since 4 A.M. Slept five hours and perspired freely. A good deal of shooting pain in the abdomen complained of. Passed

flatus both by mouth and rectum. Twenty-six ounces of clear urine drawn off.

7th. Temperature 99.2° ; pulse 88. No sickness. Passed flatus freely. Slept five hours. No abdominal distension and only slight pain. An ounce of milk and soda given every hour.

8th. Temperature 98.6° ; pulse 80. A dark-red discharge from vagina. Passed flatus freely and slept for five-and-a-quarter hours. In the last twenty-four hours has taken the following amount of nourishment:—

Milk and soda	18 oz.
Beef tea	$1\frac{1}{2}$ oz.
Tea	6 oz.
Barley water	3 oz.

9th. At 6 A.M. free vaginal discharge. At 8.40 had sharp pains, and was passing clots. A hot douche of 1 in 3,000 perchloride of mercury was given, when a complete ovum of about two months came away, surrounded by clots. Pulse 82; temperature 99.2° ; urine, twenty-seven ounces drawn off.

10th. Rather free hæmorrhage from vagina on passing urine naturally. Temperature 99.2° ; pulse 80. Slept six-and-a-quarter hours. Is taking nourishment well.

11th.—Bowels relieved by enema. Temperature 98.8° . Vaginal discharge slight.

13th.—Stitches removed, and wound found to be united perfectly. To have solid food. Temperature and pulse normal.

22nd.—Has severe toothache.

25th.—Two upper molar stumps removed under gas by surgeon-dentist.

29th.—Quite well. Getting up daily and walking about ward.

31st.—Passed a somewhat offensive clot, and period has begun. Ordered to take every four hours:

Ammonii Bromidi	15 grains
Extract. Ergotæ Liquid.	1 drachm
Aque Menthæ Pip.	1 oz.

November 5th.—Discharge continues free and rather offensive.

7th.—Discharge ceased. On examination uterus found to be normal in position and size. Patient discharged well.

CASE 2. Ovarian tumour. Three months pregnancy: ovariectomy: recovery without abortion.—Mrs. W. ætat. 26, was admitted into the Hospital on December 5, 1824, complaining of 'pain and weakness in left side.'

She had been married five years. Had one child, four years old. Labour was normal in every respect. Only suckled her child for a fortnight, as her milk stopped.

Catamenia began at fourteen. Regular every four weeks, lasting three days. Was regular from confinement until three months ago, since when she had seen nothing.

Present illness.—Felt quite well until seven or eight weeks ago, when (owing, as she thought, to catching cold) she felt ill and weak, with shivering from time to time, accompanied by severe pain in the lower abdomen, and also in the left breast. For the same period she had a thin yellowish white vaginal discharge. Micturition normal. Defæcation causes pain in the left side.

7th. Examination by Dr. Duncan.—Abdomen somewhat prominent. A firm smooth elastic swelling could be felt reaching up to within two fingers' breadth of the umbilicus. The tumour was mobile and situated rather to the right of the middle line. A uterine souffle could be heard, but no foetal heart sounds. The breasts are full. Areolæ large and dark, with secondary areola well marked. Per vaginam a round smooth fluctuating tumour was felt filling up the pouch of Douglas, especially on the left side, and pushing the cervix forwards and upwards. Bimanually the abdominal tumour was found to be continuous with the cervix. Sound not passed.

11th. Under æther the uterus was made out distinctly separable from the pelvic tumour, which was diagnosed to be an ovarian cyst complicating pregnancy.

Operation.—**21st.** Patient having been anæsthetised with ether, and the abdominal wall carefully scrubbed with soap and brush, and afterwards washed with a 1 in 1,000 perchloride of mercury solution, an incision three inches long was made in the middle line above the symphysis pubis. On opening the peritoneal cavity the apex of the bladder was seen at the lower angle of the wound, and the enlarged uterus in the remainder of its extent.

Dr. Duncan introduced three fingers by the left side of the uterus and came upon the cyst, under which, with a little trouble, he passed his fingers and brought the cyst sufficiently into view to enable him to tap it with a small Spencer Wells trocar. The collapsed cyst (which was before tapping about as large as a cocoanut) was drawn out, the pedicle transfixed, tied with twisted silk in the usual way and removed. The right ovary and tube were healthy.

The abdomen was then closed with silk sutures, the wound dressed with salalembroth wool, secured by strapping, and a flannel many-tailed binder over all. The operation lasted forty minutes.

This patient made an uninterrupted recovery, the temperature not rising above ninety-nine nor the pulse above ninety. As there was rather frequent slight sickness, no food was administered by the mouth for three days. The strength was maintained by nutrient enemata, and, in order to prevent any uterine contraction, a quarter of a grain of morphia was given by suppository every eight hours for two days and then discontinued. The patient left the hospital perfectly well.

Remarks by Dr. Duncan.—Ovarian tumours complicating pregnancy are met with sufficiently rarely to warrant publication. The first case here recorded is of great interest as showing how a cystic swelling may be ruptured on vaginal examination, even though hardly any force whatever be used. Indeed, when one remembers how extremely thin is the wall of some cysts and also the walls of Fallopian tubes when distended with pus or serum, the wonder is that such accidents are not more common. The case also serves as a useful warning, showing the necessity for great gentleness in manipulating an abdominal or pelvic cyst. Whenever a cyst ruptures, from whatever cause, there is, of course, only one treatment justifiable, and that is immediate abdominal section, for one can never say beforehand whether the cyst contents are purulent or not.

In the case just recorded it is possible, as the fluid was thin transparent serum, and there was a good-sized rent in the cyst wall, that neither would peritonitis have set in nor the cyst have refilled. Nevertheless prompt abdominal section was imperatively indicated.

In the second case the diagnosis of pregnancy complicated by the presence of a cyst of some sort was easily made. The woman had not menstruated for three months, had a *firm* elastic swelling reaching up nearly to the umbilicus, and a *fluctuating* swelling in the pelvic cavity.

This case was given for comment in the last midwifery paper which we set at the Conjoint Board, and yet a large number of the candidates excluded pregnancy, as the uterus reached nearly up to the umbilicus, whilst the woman had only missed three periods. They forgot that any tumour in the pelvis would push the uterus forwards and upwards. Not a few diagnosed the case as one of retroverted gravid uterus

with distended bladder, but the conditions present were precisely the reverse of those met with in a displaced gravid uterus, for in the latter the abdominal swelling would be fluctuating whilst the pelvic tumour would be firm and elastic, and there would be trouble with micturition.

With regard to the treatment of an ovarian tumour complicating pregnancy, it seems to me that the case should be treated as if no pregnancy existed, and removal of the cyst by abdominal section (no matter how far the gestation has advanced) performed.

Tapping the cyst in these cases, as recommended by some authors, is unscientific and more dangerous than its removal.

Where the uterus is much enlarged the operation is naturally somewhat more difficult, but apart from this the only extra danger is that abortion or premature labour may occur. The frequency with which this accident happens after ovariectomy is differently stated. Probably it takes place in about 25 per cent. of the cases.

With regard to the operation itself, care, of course, should be taken to manipulate the uterus as little as possible, and, in suturing the abdominal wall, to put the sutures rather close together, and an inch away from the edge of the incision, so as to get an extra good hold in case premature labour should set in. Probably it is a good plan to keep the patient gently under the influence of morphia for a few days subsequently.

I have just expressed my opinion that an ovarian tumour should be removed whenever discovered during gestation, but I will go further and maintain that if it be detected for the first time when labour has actually begun, and it is a source of obstruction, then (unless it be a pelvic tumour which can be pushed up out of the way) rather than tap a cyst (the nature of the contents of which one is ignorant) we should at once and unhesitatingly open the abdomen, remove the cyst, carefully suture the abdominal wound, and then deliver with forceps, whilst an assistant maintains firm pressure over the parietes.

SANITATION OF THE LYING-IN-ROOM

By JOHN PHILLIPS, M.A. M.D. F.R.C.P.

Assistant Obstetric Physician, King's College Hospital; Physician, British Lying-in Hospital; Examiner in Midwifery to the University of Cambridge.

Much has been written upon the subject of 'Antiseptic Midwifery,' and considerable good has doubtless

been done thereby. At the same time there seems to be a feeling that the rules so laid down can only be carried out thoroughly in a lying-in hospital, or by an obstetrician, and that the family practitioner, with his practice consisting of many cases of specific fevers and other infectious maladies, must be placed at a considerable disadvantage. With this I cannot agree, and these few remarks are made with the object of pointing out how the essential conditions of antiseptic midwifery can be successfully fulfilled even by the busiest family adviser.

Let us consider two cases: First that in which the doctor has been engaged for some time before the labour is expected. What course will be best for him to pursue in order to bring his patient safely through her ordeal? I would tabulate his duties under four headings:—(1) With regard to the patient's environment; (2) With regard to her monthly nurse; (3) With regard to himself; (4) With regard to the patient herself.

(1) I think it essential, when possible, to see the house or the apartments in which the confinement is about to take place. Much discussion has recently been going on upon the possibility of the causation of puerperal fever by sewer gas. In whatever way this vexed question may ultimately be settled, there is no doubt that sewer gas may produce a condition so much like puerperal fever that at present we are unable to clearly distinguish the one from the other. Hence it is manifestly advantageous to the patient that the drains should be in order. It should, however, be mentioned that an enormous number of labours take place in the out-door maternities of our general hospitals, where the labour rooms are of the filthiest character, without any septic condition whatever arising.

(2) A nurse known to the doctor should be chosen, or a nurse who has been trained at one of the well-known lying-in institutions; she should, of course, be able to pass the catheter with the usual precautions. A resolute refusal should be given to the selection by the patient or her friends of some woman just because she has been her mother's monthly nurse, and 'is so kind and knows our constitutions.' The giving in on this point has, on more than one occasion, to the writer's certain knowledge, led to disaster. The nurse should be cleanly in her person, and not suffering from any offensive discharge, *e.g.* ozæna.

(3) As a medical practitioner may be attending cases of specific fever, erysipelas, wounds with putrid discharges, or other maladies liable to produce septic

mischief, or conditions allied to it, it is obviously important that he should change his clothes and bath himself before going to a labour. He is in a similar position to an obstetrician who has just seen a case of puerperal fever in consultation, or examined a cancerous uterus, &c. Such events must frequently happen to those who are attached to the general hospitals. It is obvious then that both men stand in precisely similar relations to the woman in labour, and it is as safe for the one as for the other to attend her.

(4) Unless the patient has a putrid discharge, whether from cancer, gonorrhœa, dead fœtus, or the like, no antiseptic treatment is necessary before labour.

The second case is that in which the doctor has never seen the patient before. He is sent for in a hurry to attend her, and is in ignorance as to the state of the drains, and of the qualifications of the patient's nurse.

In either case the practitioner is now in the lying-in room, and the question is what must be the mode of procedure?

(1) He should always carry with him, in a small cardboard box, about a dozen powders, consisting of ten grains of corrosive sublimate, fifty grains of tartaric acid (to prevent precipitation), and one grain of cochineal (to give a bright pink colour); one such powder, when added to one pint of hot water, will produce a coloured solution of 1 in 1,000 (cor. sub.).

(2) This solution should be first made and placed in a small sponge-bowl by the bedside, and no vaginal examination must be made without first dipping the hands into it.

(3) The practitioner should also carry with him a small bottle of corrosive sublimate (1 part) dissolved in glycerine (1,000 parts) for the purpose of lubricating the examining finger.

(4) The hands, wrists, and especially the fingernails should be washed with soap and water, and scrubbed with a nail brush, then carefully dried.

(5) The hands should now be held in the mercury solution for a minute *by the watch*, and after withdrawal must be allowed to remain wet.

(6) Before making the vaginal examination, the external genitals should be thoroughly cleansed by the nurse with cotton wool soaked in the 1 in 1,000 solution, she herself having already gone through the process as given in 4 and 5.

(7) After the termination of labour, no vaginal douche is required in simple cases, but the external

genitalia should be thoroughly washed with the 1 in 1,000 solution, the hair cut short, and blood clots removed.

Perineal lacerations should be repaired and a sanitary pad applied.

(8) During the lying-in period no vaginal douches are necessary, but the external genitals should be washed twice daily with wool soaked in the 1 in 1,000 solution. Both doctor and nurse should always dip their hands in the basin at the bed-side before touching the hypogastrium or genitalia of the patient. These precautions should be observed for fourteen days, or longer if the lochia remain red coloured.

These general rules are, if carried out *with exactitude*, quite sufficient for the routine of private practice. Sepsis is a preventable disease, and should in time be reduced to a minimum, if not entirely abolished.

I should add that the rules observed in a lying-in hospital are necessarily more elaborate and strict, but a discussion of them is apart from the subject of this paper.

CONGENITAL ANOMALIES OF THE IRIS

By F. R. CROSS, M.B. LOND., F.R.C.S.

Surgeon to Bristol Eye Hospital, and Ophthalmic Surgeon Bristol Royal Infirmary.

The iris in its development is derived from two sources: (1) the posterior pigmented uveal portion grows from the front edge of the optic cup, where the interior layer of the ocular vesicle is invaginated within the exterior layer; while (2) the iris tissue, muscles and vessels, comes forward from the mesoblastic choroid. The two portions blend and spread forwards from the periphery towards the centre of the lens, where they terminate in the pupil.

The normal pupil is usually placed a little below and to the inside of the centre of the iris. If it is obviously displaced the condition is known as 'Corectopia' (fig. 1).

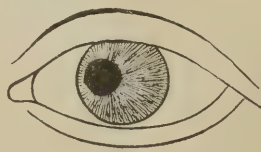


FIG. 1.—CORECTOPIA

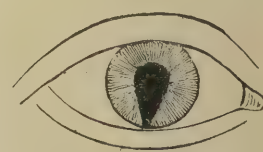


FIG. 2.—COLOBOMA

During its development also the eyeball gradually closes in from above downwards, leaving for a time a

cleft below, known as the ‘foetal ocular fissure.’ Should any part of this remain unclosed a Coloboma results. ‘Coloboma Iridis’ (fig. 2) is usually downwards; it may be a mere notch in the pupil, or may pass through the entire width of the iris, or into the choroid.

‘Polycoria,’ multiple pupils, is a very rare condition (fig. 3) from H. Work Dodd’s case (Trans. Oph. Soc. Vol. 14). The patient was a gardener. With correcting spectacles his vision was 6/9. All four pupils acted under light, the two small central ones dilated under atropin, the lateral ones appear to be mere clefts in the iritic tissue. Both eyes were somewhat similarly affected.

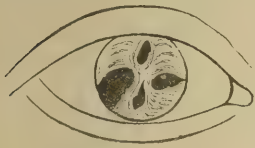


FIG. 3.—POLYCORIA



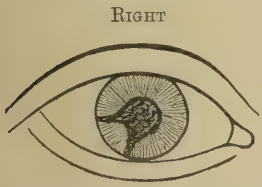
FIG. 4.—ANIRIDIA

‘Aniridia’ or ‘Irideremia,’ absence of the iris, is usually binocular, and is often hereditary. Fig. 4 is taken from a woman, 48, who first came under my notice in 1891 with no trace of any iris tissue. There was no history of eye trouble in her parents. She had always been practically blind; the eyeballs were normal in size, but the optic nerve elements were probably very ill-developed.

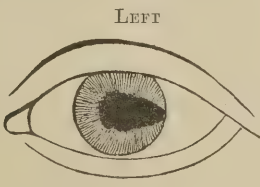
Both lenses were cataractous (X), but a clear red ring could be seen with the ophthalmoscope all round their edges (Y), Petit’s canal being exposed by the absence of the iris.

I extracted one lens, and the other after an interval. The wounds healed well, but sight with a spectacle only reached 4/60, which however she has found a great improvement. She can avoid obstacles &c.

Two out of this woman’s three living children show inherited defects of iris, partial irideremia. The



ABSENCE OF CHOROIDAL PORTION OF IRIS



LATERAL COLOBOMA

FIG. 5.

elder child, eight and a half years, has equal sight in the two eyes 6/36 J. 8. The left pupil shows a large

Coloboma passing outwards (fig. 5 L); the right a peculiar absence of the choroidal portion of the iris, so that the exposed uvea looks as if it were a portion of a peculiar-shaped pupil (fig. 5 R). These pupils act properly to atropin. The younger child has very imperfect irides (fig. 6). They are completely want-

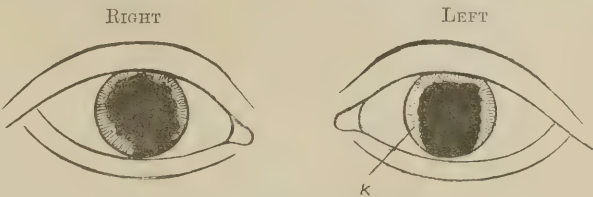


FIG. 6.—PARTIAL IRIDEREMIA

ing below, and the nasal side of the left (K) is so thin and ill-pigmented as to be transparent. What iris is present elsewhere is so narrowed that the edges of the lenses can easily be traced all round with the help of the ophthalmoscope. The child is practically blind. Neither eserine nor atropin has any effect in altering the shape of the pupils.

A man aged 26 shows a similar congenital condition (fig. 7). His right eye has always had very



FIG. 7.—PARTIAL IRIDEREMIA

defective vision, and is somewhat microphthalmic, but the left must have seen very well, despite the peculiar pupil, for in 1890 he won a rifle shooting prize at 900 yards. No defect of sight was noticed in that eye until December 1894, when it was wounded by a chip of stone.

When I first saw him both eyes were cataractous. There was an almost symmetrical absence of the lower and outer half of the iris in both eyes. The iris that remains inside and above is a thin rudimentary band about 2 mm. in width. Drugs neither dilate nor contract the pupils. A few days ago I extracted the left lens with, I hope, prospect of a good result.

Other anomalies of the iris depend on an imperfect absorption of the vessels and connective tissue that form the capsule for the foetal lens, or that pass across the pupil from the blood-vessels of the ‘circulus minor’ of the iris. Though remains of these are said not infrequently to exist in newly born children, they ought to degenerate and completely disappear.

'Persistent pupillary membrane' (fig. 8) consists of fine fibres passing from the corona iridis free of the lens capsule across to an opposite point of the pupil.

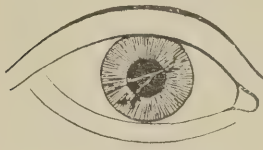


FIG. 8.—PERSISTENT PUPILLARY MEMBRANE

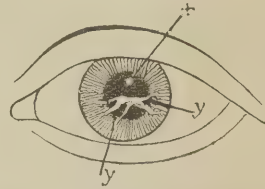


FIG. 9.—PERSISTENT PUPILLARY MEMBRANE

Fig. 9 is a more complicated case drawn from a young man of twenty, whose eye I have since successfully needled. X is an anterior polar cataract; Y a fibrous nodule, into which a number of cords run from the 'corona iridis.' The pupil acted freely to atropin and to eserine. Under the latter the nodule Y hung down with the cords into the anterior chamber. The persistent membrane was thus proved to be free of the lens capsule.



FIG. 10.—PERSISTENT CAPSULO-PUPILLARY MEMBRANE

When the fibres are adherent to the capsule the case is one of 'persistent capsulo-pupillary membrane' as in fig. 10.

CLINICAL FRAGMENTS

By FRANCIS HAWKINS, M.B.

Physician to the Royal Berkshire Hospital, Reading, late Physician the North London Hospital for Consumption and Diseases of the Chest; Clinical Assistant to the Hospital for Sick Children, Great Ormond Street, and Physician to St. George's and St. James's Dispensary, &c., &c.

Croupous pneumonia in children.—CASE 1. A female aged six years, admitted to the Hospital in November, 1894, with a history of having been taken ill suddenly seven days previously with vomiting, drowsiness, and anorexia. On admission the patient was found very emaciated. She was very drowsy and lying on her right side. The *alæ nasi* moved freely in respiration, which was rapid. There was dulness in the right infra-scapular region, the breath sounds were distinctively tubular, with a few fine crepitations and numerous coarse *râles*. Similar *râles* were heard

anteriorly, but there was no dulness here. The left lung was apparently normal, heart rapid, pulse 150, abdomen normal, temperature on admission 102.8° , but toward evening 104.62° .

It had been suggested that the disease was acute tuberculosis, that the vomiting and drowsiness were indicative of meningitis, and the pulmonary signs of tuberculosis. It is true that the patient had long eyelashes and downy hair over the interscapular regions, a condition which I have found most common in those who either suffer from, or who are the offspring of parents who have had, pulmonary tuberculosis, yet these symptoms may be present in other states when nutrition has been impaired. In this case no antecedent history could be obtained.

The provisional diagnosis made at first was 'Croupous Pneumonia,' and this diagnosis was based upon the suddenness of the onset, the fact that vomiting, drowsiness, and anorexia were associated with pulmonary signs limited to one side, and that the signs of consolidation had appeared, comparatively speaking, rapidly. The subsequent course of the case bore out this view. The temperature fell suddenly, and the pulse and respiration took a similar course, the consolidation soon cleared up, and the child became quite well. The change at the crisis from being drowsy to being lively, and from anorexia to a condition which may be called almost ravenous, was typical of what is so frequently observed in croupous pneumonia.

Croupous pneumonia is common in children, but it may occur at any time after the first year of life. Barthez and Saurre have met with instances in children six weeks, four months, and six months old. It is frequently confounded with 'feverish attacks' and 'meningitis.' The most frequent symptoms at the onset of croupous pneumonia in children are vomiting, cough, pain, and drowsiness, which may occur either separately, together, or associated with anorexia, dyspepsia, delirium, or diarrhoea, and any of these symptoms may accompany the disease throughout its whole course, or cease at the instance of well-marked pulmonary signs. These latter may not be present, at least in a recognisable condition, until some days after the absolute onset. In the case now under

review the child had been ill for some days before the pulmonary signs manifested themselves in a marked condition. On the other hand, the crisis of this disease may follow the symptoms of invasion with great rapidity, and the actual pulmonary signs not be present until the crisis. I do not say this is a constant feature of the disease, but that it is a frequent one. The crisis may occur as soon as thirty-six or forty-eight hours, and as late as the fourteenth day, being in most instances on the sixth or seventh day. Such cases may be easily mistaken for feverish attacks or meningitis, the latter being a not uncommon error.

Diarrhœa is not a very frequent symptom at the onset of croupous pneumonia, yet it may thus occur, and may even remain throughout the course of the disease.

CASE 2. Not long since a child was admitted to the Hospital, aged seven years, who had croupous pneumonia, but was said to be suffering from typhoid fever, with pulmonary complication. The symptoms at first had been cough, pain about the chest, and drowsiness, with retching and diarrhœa. The pulmonary signs were well marked, but the child made a quick and good recovery. There is one other point in respect to this affection to which I would draw attention. It is that the *alæ nasi* will move freely in respiration some time before any pulmonary signs are observed, so that if this symptom be present in conjunction with one or all of those before named there will be strong presumptive evidence that the case is one of croupous pneumonia.

Pulmonary tuberculosis. (Phthisis.)—It may seem to many somewhat trite and commonplace to comment upon this disease, but I hope that the lessons to be learnt from the case I am about to record may be thought of value.

A fair-haired, tall, slightly built young man, aged twenty years, was admitted to the hospital complaining of breathlessness and sickness. The left side of the thorax was smaller than the right, and scarcely moved in respiration. There was some flattening of the infra-clavicular region, and impulses were seen in each interspace from the second rib to the position of the apex beat, which was in the mammary line.

On percussion there was dullness in the left infra-clavicular region, with this exception, that above the cardiac dullness from the left paristernal to the midsternal line there was resonance. The axillary

region was dull, and posteriorly the percussion note was decidedly muffled.

On auscultation over the infra-clavicular region the breath sounds were bronchial, and after a slight cough a few metallic *râles* were heard. There was also in this region bronchophony and pectorilorny. Laterally and posteriorly the breath sounds were weak and indeterminate. The right side moved freely in respiration. On percussion there was resonance over all regions of this half of the thorax, and resonance extended anteriorly above the second rib, over towards the left side as far as the paristernal line. The stomach note was as high as the sixth rib in the left mammary line.

The above facts led me to form the following opinion. That the left lung was adherent—if not wholly, at least in parts—to the chest wall; that excavation had taken place in the upper lobe of the left lung, and that shrinking of the lung had occurred, and in consequence of this the heart was not only uncovered, but also displaced towards the left. Further, I concluded that the right lung had become enlarged, and that the anterior border of its upper lobe had expanded over to the left side.

From the fact that this right side moved freely in respiration while the left was practically quiescent, we knew that this patient lived, so to speak, by his right lung. Such a condition as this is by no means uncommon. We know that when people die from causes other than pulmonary, the anterior borders of the lungs extend forwards and inwards in front of the pericardium, and the narrow pleural recess behind the sternum and costal cartilages, but post-mortems on cases of pulmonary disease demonstrate the fact that many changes may be found varying from these normal conditions.

In pulmonary tuberculosis it is not uncommon to find the anterior border of one, or indeed of both, lungs withdrawn from this position, or emphysema takes their place. Or we may have only the anterior border of one lung retracted (as we should find in the case under review) and the opposite free border greatly expanded. Often when it is the right free border that encroaches upon the left side the upper lobe only extends, but both the upper and the middle may do so. This expansion of lung may extend as far as the mammary line, and with such a condition there is resonance, not dullness, over the infra-clavicular regions on both sides, and this circumstance

renders the diagnosis of the real state of the lung difficult, the more so if we are not acquainted with the fact that such may exist. We do not always find the heart displaced when the anterior border of the lung retracts, it may be merely uncovered; but when displaced, the degree depends upon the previous condition of the lung and pleura.

In cases where excavation has occurred in the lower as well as in the upper lobe, and the lung shrinks and becomes collapsed in parts, displacement of the heart may be extreme. The most marked case that I have seen was in a female patient in the Brompton Consumption Hospital, in whom the apex of the heart was found to be pulsating under the angle of the scapula. A similar condition (it may be the same case) was shown at the Clinical Society by Dr. A. T. Davis.

This condition of 'shrinking lung' must not be confounded with pulmonary fibrosis. The latter in my experience is not so common as the lesser degrees of the former. Extreme displacement of the heart may occur in pulmonary fibrosis, the apex may even beat in the mid-axillary line when the left side is affected. Now, it must not be inferred that it is always or mostly the left lung that shrinks, and that the heart is displaced only to the left. In my notes I find records of two instances where the right lung has retracted, and in one instance the heart was displaced to the right side of the sternum.

Past and present history of the patient.—My notes state that about twelve months ago he suffered from profuse 'night sweats,' with constant cough and expectoration. There had, however, never been any hæmoptosis. While an in-patient his temperature was never higher than 98·9°. There was neither cough nor expectoration, and the patient steadily gained in weight. Thus we further learn that although we may have physical evidence of pulmonary tuberculosis in the excavation stage, yet the disease may be perfectly quiescent; in fact, at the present time this patient may be regarded as healthy. It is true he cannot do quite as much work as a man with two normal lungs, just as a man who has lost one leg cannot walk as well as when he had two sound ones. Still, he is a healthy man.

Further, this illustrates that pulmonary tuberculosis is one of those diseases which can run a certain definite course and then stop. We have abundant evidence to show that a person may at one

time suffer from pulmonary tuberculosis, and be free from it at another. In illustration of this, mention may be made of a gentleman I know who is a very active and hard worker, indeed to look at him no one would suppose he had ever been ill, yet he has evidence of an excavation in the upper part of the right lung, and has had it for more than twenty-five years. Thirty years ago his case was looked upon as hopeless.

The next case I will allude to only briefly. A boy, aged eleven, who when first admitted had evidence of tuberculosis in the apex of the right lung. His temperature was characteristic, and remained so for twenty-two days, being on some occasions as high as 104·4°. Family history bad. Mother died from phthisis. Her mother also died from the same disease. Two other children at the same age as the patient became ill in an exactly similar way, and died after a few weeks' illness. I mention this case to draw attention to some points in the treatment of the disease.

The boy was put to bed, given quinine, and allowed to sleep as much as possible. He slept continuously for over a week. He seemed to be imbued with sleep. This was encouraged because in the treatment of active pulmonary tuberculosis rest, with much feeding, always seems to give good results, and by rest is meant rest to the lung, which carries with it *silence*.

Dr. Andrew Comte, in his 'Essays on Physiology Applied to Health and Education,' states that, 'If the lungs are inflamed, they must be exercised as little as possible, otherwise mischief will ensue.' He refers to the fact that when a joint is inflamed we know that motion impedes its recovery, and therefore we keep it quiet. Upon the same principle, silence, which is the absence of direct pulmonary exercise, ought to be preserved in diseases of the lungs.

This boy improved greatly after his period of sleep had passed off. He became tired of bed and wanted to get up, but was kept there for a week longer, and sponged daily with cold water. His temperature, which had decreased before this treatment was commenced, became normal. There still remained a muffling of the percussion note over the right infra-clavicular region with harsh respiration, and the *râles* which were at first numerous over a limited area in this region dried up.

Since his discharge, nearly a year ago, the boy has been seen occasionally. He is still gaining weight. The temperature remains normal. The physical signs have not increased. No *râles* are heard, and the patient is able to go to school and hold his own amongst other boys. There is, I think, no reason to doubt that this patient had a small tuberculous nodule in the apex of the right lung, which softened, and which has now become inactive.

At a future period some pathologist may find in his lungs the cicatrix indicating the position of the disease now described.

ATHEROMA OF THE AORTA AND DEATH FROM HÆMORRHAGE INTO THE TRACHEA

By J. EGERTON BRANDT, B.A. CANTAB, M.D. EDIN.
Formerly House Physician to the Hertford British Hospital, Paris.

P. T., aged 48, a shoemaker, was admitted to the Hertford British Hospital, in Paris, on February 16, 1894, under the care of Dr. Alan Herbert, by whose kind permission I am allowed to publish these notes. The patient complained of shortness of breath and general debility. The family history was good. He had had no previous illnesses, with the exception of a few winter coughs lately. Eleven weeks ago he felt a dull pain on the inner aspect of the left elbow, which spread up to the axilla during the following days, but did not prevent him from working. This disappeared, and, but for a cough with scanty white sputum, he was in his usual health.

On February 5, when going up hill, he was seized with urgent dyspnœa and a feeling of impending death, had to sit down, tear off his collar, and was given some brandy. He stayed in bed for ten days, when his breathing improved by the rest, and he then came to the hospital.

The patient looked older than his age, his complexion was pallid, and his breathing audible. He was in no pain, and slept in the recumbent position.

Respiratory system.—Lungs emphysematous, with hyper-resonant note. Vocal fremitus more marked on right side. Breathing bronchial over right lung posteriorly, and harsh on the left side, with scattered sibilant *râles*. Respiration 24 per minute.

Circulatory system.—Heart apex in fifth interspace, internal to mammary line. Visible epigastric pulsation. Dulness with difficulty found to extend two inches beyond right border of the sternum. Heart-beat regular, 80 per minute. Visible pulsations in

the arteries and veins of the neck. Both sounds of the heart were accentuated, the second having a metallic ring. No adventitious sounds. Radial pulse regular, jerky with thickened artery.

Urine.—Sp. gr. 1.015. No polyuria. A trace of albumen was constant. There was slight œdema over the lower end of the tibiæ. Temperature, 98.6°.

The patient was kept on light diet (chiefly milk) and potassium iodide given in 5-grain doses. For a fortnight he slept well, and his appetite was good. He was then allowed to sit up by his bedside in the evening.

On March 3, when returning to bed, he was seized with urgent dyspnœa, and was found sitting on the edge of his bed, with an expression of terror on his face, which was pale. He was grasping his locker and breathing loudly, but had no pain. Resp. 40. Pulse 100. Ether, 30 minims, was injected subcutaneously. The attack stopped in ten minutes, and he had a good night.

March 10. The patient's sputum was white and viscid, and contained thin streaks of dark-coloured blood. Pulse weaker. He was kept in bed and was feeling well when, on the 16th at 3.30 A.M., the nurse, who had seen him asleep a few minutes before, heard a cry, and on going to his bed found him in urgent dyspnœa with hæmoptysis. The patient rapidly succumbed.

P.-M. Examination.—10 hours after death.

Lungs.—Emphysematous. Pleura smooth, containing 15 ounces of blood-tinged serum. Lower lobes of both lungs almost black, and on section full of blood.

Heart.—Pericardium smooth, containing 1½ ounces of blood-tinged serum. Left ventricle empty and contracted. Walls thickened. Right ventricle thin-walled, flaccid, containing some blood and post-mortem clots. The auricles and mitral valves were healthy. The aortic valves were thickened and rough, but competent.

Aorta.—On removing the heart the aorta cut like ossified cartilage. The lumen was distended uniformly, and the inner layer was represented by calcareous plates of varying size. On the postero-internal aspect, at the junction of the ascending and transverse portion, there was a small patch of partly organised blood clot, which on removal revealed part of the vessel wall eroded and filled with organised blood clot, which adhered to the anterior aspect of the trachea at a point 1½ to 2 inches above its bifurcation.

Trachea.—On dissecting off the healthy œsophagus and opening the trachea from behind, a patch corre-

sponding to that described as existing on the aorta was found, in which the cartilage was eroded and replaced by blood clot. An opening of the size of a large pin's head had brought about the fatal result. The blood had burrowed through the thin layer containing the posterior mediastinal and upper bronchial glands, making a direct channel for itself without any dilatation.

The *kidneys* showed a condition of granular contraction.

Remarks.—The following points seem clinically noteworthy, as they show the difficulty of anticipating the imminent danger in such a case.

(1) The absence of any local dilatation rendered percussion signs negative, for the general and relatively slight increase in calibre of the atheromatous vessel was masked by the emphysematous lungs.

(2) The slight dyspnoea between the attacks, which was very similar to that of patients suffering from emphysema and chronic bronchitis.

(3) The entire absence of any characteristic pain or other symptoms of pressure on neighbouring nerves.

(4) The importance of rightly interpreting the two attacks of urgent dyspnoea, for otherwise the heart sounds, thickened arteries, and the urine indicated extensive arterial changes, but nothing further.

TETANUS ANTITOXIN

We are gradually obtaining more definite information regarding the antitoxin of tetanus.

The experiments made by Professor Tizzoni upon the lower animals gave such excellent results that they have been followed up by treatment of human beings upon the same principle.

In July of 1894 Mr. Henry Percy Dean, of the London Hospital, treated a case of tetanus in a youth, aged 16, with apparent success. A complete record of this case was given in the 'British Medical Journal' for September 15, 1894. The dose used was 2.25 grammes, although the maximum dose recommended by Tizzoni was 4.5 grammes. The smaller quantity was used by Mr. Dean on account of the boy's age. Dr. Herbert L. Evans, of Goring-on-Thames, also recorded the case of a boy nearly 14 years of age, who had received a cut on his right knee on June 26, and began to develop symptoms of 'stiffness in the back and pain between the shoulders,'

on July 26. Difficulty in mastication and opisthotonos supervened. Tizzoni's preparation was used. The dried serum was very difficult to dissolve in cold distilled water, and was used much weaker than advised. Not more than 4½ grammes was used in all in 20 mm. doses.

In a paper read before the Liverpool Medical Institution, and reported in the 'Liverpool Medico-Chirurgical Journal' for January 1895, Mr. Rushton Parker records the case of a boy aged 14 affected with trismus and general muscular rigidity evidently due to tetanus.

The symptoms had existed for a week and were apparently due to a splinter embedded for several weeks in the right thumb. The tonic spasm affected the jaws with *trismus* and the mouth with *risus sardonius*, and caused the trunk and lower limbs to be stiffened into line. Opisthotonos was distinct but moderate. Temperature was slightly raised and the pulse quickened, especially during the convulsive attacks.

During the first fifteen hours after admission he was twice injected under the skin with solution of carbolic acid (1 in 20), half a fluid ounce each time. Meanwhile steps were being taken to procure antitoxin, which arrived next day, and was described as dried serum from an immunised horse.¹

Antitoxin treatment.—The first dose contained 2½ grammes or 38½ grains of the dried serum, dissolved in 10 parts of boiled distilled water that had previously cooled, and was administered hypodermically in the inner side of the thigh on the day after admission, followed by a daily dose of one quarter the amount for six more days, by which time the boy's recovery seemed assured. In consequence of the violent pain attending the spasms, it was thought right to give him morphia. This was used hypodermically for six days, about ¼ gr. of the sulphate being injected usually once a day, an hour after midnight, the hours of the early morning being those in which the spasms were always most severe.

About twelve hours after the first dose of antitoxin there appeared to be a marked decline in the severity of these spasms, which became slightly aggravated again after another twelve hours. After the clonic spasms disappeared there remained rigidity of the muscles of the trunk and lower limbs, and also slightly of the jaws and mouth, but gradually all this disappeared.

¹ Prepared by Tizzoni & Cattani of Bologna, and supplied by Messrs. Allen & Hanbury, of London.

THE PREPARATION AND PROPERTIES OF TETANUS ANTITOXIN¹

A very valuable paper upon this subject has been written by Dr. Richard T. Hewlett, Assistant Bacteriologist, British Institute of Preventive Medicine, his work being based mainly upon the lines followed by Roux and Vaillard.²

Preparation of the toxin.—A detailed account is given of the method of preparation. Then under **Immunisation** is described the procedure of rendering animals, and especially the horse, proof against tetanus. Another paragraph deals with the preparation of the **antitoxin**.

As in the case of the antitoxin of diphtheria, it is the serum which is used for injection.

‘By working aseptically there is no difficulty in collecting and keeping the serum sterile; it should however be stored in a dark cool place, and a little camphor may be added to it. As cases of tetanus are not common, it is customary to evaporate the serum to dryness, the dry substance being more conveniently kept without change.

‘The serum yields 9 to 11 per cent. of the dried substance, which is kept in stoppered bottles in a dark cool place. For use it should be powdered finely, and dissolved in sterilised distilled water without the aid of heat.

‘**Properties of the antitoxin.**—Experimentally, the effects of the antitoxin are little short of marvellous. Minute doses injected into animals will completely neutralise fatal doses of the tetanus toxin injected eight to twelve hours afterwards. Thus 0·0005 c.cm. of the antitoxic serum was found to be sufficient to protect a guinea-pig weighing 400 to 500 grammes from the minimum fatal dose of the tetanus toxin, which in the present instance was about 0·01 c.cm. Mixtures of the toxin with the antitoxic serum, in the proportion of 40 or 50 parts of the former to 1 of the latter, are completely inert, and 2 c.cm. of such a mixture, containing nearly 2 c.cm. of the deadly toxin, may be injected into a guinea-pig without producing any effect. The antitoxin also possesses considerable curative power, but much larger doses are necessary when the disease has declared itself than when used as an immunising agent.

‘**Treatment of tetanus in man.**—The antitoxin treatment of tetanus would seem to be the one which gives the best hope of cure, though it can hardly be so

successful as the corresponding treatment of diphtheria is reported to be.

‘Dr. Hewlett has collected records of 42 cases of tetanus treated with antitoxin, nearly all traumatic, and of these 15 died and 27 recovered, giving a mortality of about 36 per cent. If these figures can be relied on, the result is encouraging, but the tendency is always to report successful cases only. The antitoxin must be administered by subcutaneous injection. It is difficult to state what the dose should be, for this has varied enormously in the recorded cases, from 10 c.cm. to 165 c.cm. Probably 20 c.cm. to 40 c.cm. for a first dose, followed by 10 c.cm. every six or twelve hours, would be found most suitable.

‘Of the dry antitoxin, 1 gramme corresponds to about 10 c.cm. of serum, so that the dose of this would be 1 to 4 grammes. If reduced to an impalpable powder it dissolves fairly readily, 1 gramme to every 5 c.cm. or 10 c.cm. of sterilised distilled water.

‘[NOTE.—The above work was carried out by means of a Government grant. By permission of the Grant Committee of the Royal Society, the immunised horse has been transferred to the British Institute of Preventive Medicine, and the tetanus antitoxin can be supplied on application to the Director, 101 Great Russell Street, W.C.]’

INFLUENZA

The Local Government Board have sent copies of a memorandum prepared by Dr. Thorne Thorne to local authorities to be given to the medical officers of health of their district.

After referring to the subject generally and to his former report (in 1892) Dr. Thorne Thorne goes on to state that further study of the disease shows the great difficulty there is in applying measures of prevention. Further, that: ‘Influenza is highly infective from person to person: its infectious quality is often manifested before the disease is fully recognised; its incubation period is one of the shortest of all infectious diseases; it varies so much in intensity that many cases are never diagnosed at all; one attack confers no marked immunity against another; and the infection is largely eliminated by means of the lungs, the sputa of the sick being invariably charged, during the acute stage of the disease, with its pathognomonic micro-organism. The disease calls primarily for measures of isolation and of disinfection, but there are difficulties in making any such measures universally applicable. Wherever they can be carried

¹ *British Medical Journal*, March 2, 1895.

² *Annales de l'Institut Pasteur*, 1893, ii. p. 64.

out, the following precautions should, however, be adopted:—

‘1st. The sick should be separated from the healthy. This is especially important in the case of first attacks in a locality or a household.

‘2nd. The sputa of the sick should, especially in the acute stage of the disease, be received into vessels containing disinfectants. Infected articles and rooms should be cleansed and disinfected.

‘3rd. When influenza threatens, unnecessary assemblages of persons should be avoided.

‘4th. Buildings and rooms in which many people necessarily congregate should be efficiently aerated and cleansed during the intervals of occupation.

‘It should be borne in mind that the liability to contract influenza, and also the danger of an attack, if contracted, are increased by depressing conditions, such as exposure to cold, and to fatigue, whether mental or physical. Attention should hence be paid at epidemic periods to all measures tending to the maintenance of health, such as the use of clothing of suitable warmth, and a sufficiency of wholesome food.

‘Persons who are attacked by influenza should at once seek rest, warmth, and medical treatment, and

they should bear in mind that the risk of relapse, with dangerous complications, constitutes a chief danger of the disease.

IS THE APPPOSITION OF PERITONEUM TO PERITONEUM A SURGICAL ERROR?

Mr. J. Greig Smith (‘British Medical Journal’ for January 5th, 1895) writes upon this subject. He gives abundant proof ‘that for all purposes where sound, speedy, permanent union is desired, the apposition of two intact serous surfaces is a surgical mistake.’

His experiments and experience go to show that sero-serous union takes place very rapidly, ‘that in a few hours it is water- and gas-tight. But such union is no more rapid than when peritoneum is apposed to a raw surface. If we bear in mind,’ he states, ‘the histological forces at work, we can readily understand how this should be. The layer of lymph and young cells which lies between the serous surface has little cohesion, and, being shut off by a double layer of endothelium from vascularisation and from ingrowth of plasma cells, is long in being converted into true granulation tissue. Vascularisation is slow and fibrillation is slow, and while

Edward John Chance, F.R.C.S. (Hon.)

THIS remarkable man died at his residence in Russell Square on Monday, February 25, 1895, aged 87 years.

Associated with King’s College and Middlesex Hospitals, he became Lecturer on Practical Anatomy at the Hunterian School of Medicine, afterwards Surgeon to the Society for Diseases of the Spine and Hip, and subsequently Assistant Surgeon to the Royal Orthopædic Hospital. The latter post he held for seven years, and only left it to take the Surgency of the City Orthopædic Hospital in Hatton Garden. At this latter institution he has worked regularly until about a year ago, when, in consequence of an accident, he lost muscular power over his left leg and had been confined since to the house.

He was a man of erudition, of great personality, possessing ability as an artist, a writer, and a surgeon.

He carried on the chief part of the work of the hospital without ever taking a holiday. He possessed consummate mechanical skill, and extraordinary aptitude in applying it to the treatment of orthopædic deformities. Absolutely devoted to his work and

intolerant of interference, he held himself aloof, in later years, from other members of his profession, and so became almost unknown, except to his colleagues at the Metropolitan and the City Orthopædic Hospitals.

Those of his old friends who remain well know the great abilities he possessed, recognising that had he cared to make the best of his opportunities he might have attained to any position of honour, and to any worldly success which he had desired.

In 1862 Mr. Chance published his book on ‘The Nature, Causes, and Variety of Bodily Deformities,’ a work which attracted a great deal of notice at the time. The ‘Lancet’ of May 31, 1862, stated, ‘a book that has so little of the narrow spirit of the specialist in it is rarely seen’; further, that ‘it could only have been produced by a skilful anatomist, an acute physiologist, a sagacious surgeon, and . . . an accomplished artist.’ All the chief medical journals of that day reviewed this work most favourably. A second edition is about to be issued.

they are going on Nature is beginning to get rid of the exuded lymph. Such adhesions often disappear; if they remain they nearly always get thinned and elongated.

‘On the other hand, the primary lymph coagulum between serous and fibrous surfaces forms just as quickly, and, having more points of attachment amongst the opened fibres, it holds more strongly. As it taps open connective tissue and is surrounded by plasma cells, vascularisation begins at once and goes on apace. At the end of two days sero-fibrous adhesions are stronger than sero-serous; at the end of a week sero-serous adhesions may still be peeled off with little bleeding, sero-fibrous can then scarcely be separated at all, and their separation causes free bleeding. If there is little to choose between the two as regards prevention of extravasation of fluids for the first few hours, the sero-fibrous has a decided advantage as time goes on. The lowly-organised, inert, and loosely coherent plug of lymph is easily disturbed and would be easily broken up in the presence of fluid. This we know to our cost; it is on the second or third day that leakage takes place. A sero-fibrous junction that lasts for a day is practically safe for ever, for it goes on improving in strength and solidity.

‘The practical application of these principles is as wide as abdominal surgery, and includes not only results to be encouraged but results to be avoided. Where it is desired to secure quick, strong, and permanent union, sero-fibrous apposition is better than sero-serous. Where the union sought need not be strong and is desired to be only temporary, sero-serous apposition may be adopted. Fibro-fibrous apposition, while perhaps as good as sero-serous, is not in my experience so good as sero-fibrous. Sinister results which we seek to avoid arise when we leave raw surfaces to which intestines may adhere and cause obstruction. To cover such a surface by peritoneum would, according to published statistics, save nearly 2 per cent. of the deaths after abdominal operations.’

It is impossible in this short notice to do justice to Mr. Greig Smith's paper, which should be read by all those interested in this subject. We merely wish to call attention to the above facts.

INFANTILE SCURVY-RICKETS

The illustration below is copied from a rough sketch made by Dr. George Carpenter from a patient of his

at the Evelina Children's Hospital. It represents a common posture of a child suffering from so-called scurvy-rickets.

A. J. S. aged 16 months. Had cut all his incisor teeth, and the first lower and upper molars. The gums were distinctly spongy round all the teeth. The child was of a yellow lemon colour. He lay in this position on his back, almost constantly crying and screaming as if in pain, and the screaming was intensified when he was approached for examination. This latter fact is very typical of these cases.



Bone extremities were decidedly enlarged, and there was distinct thickening of both femora. The patient was very tender to the touch, the left limb, however, being less sensitive than the right. Arms also tender. Dorsum of feet œdematous. Subperiosteal hæmorrhages in forearms.

The general symptoms of the case were those generally described as characteristic of scurvy-rickets.

This disease has been described in Germany as acute rickets; by Dr. Gee as osteal or periosteal cachexia. Dr. Cheadle has also written upon the subject, but one of the most recent descriptions has been given by Dr. Thomas Barlow in his Bradshaw Lecture.¹ The following is an epitome of that lecture:—

The disease attacks children chiefly from the age of 9 months to that of 18 months, but may begin at any period after the age of 4 months.

¹ Delivered before the Royal College of Physicians of London on November 6, 1894.

Symptoms.—Rather sudden onset. Fretful when disturbed. Lower limbs kept flexed, but upon any disturbance child cries vehemently from pain evidently proceeding from the lower limbs. Next, some obscure swelling may be detected, first on one lower limb, then on the other, though it is not absolutely symmetrical. The skin still remains pale, and there is no local heat and no pitting. The swelling is ill defined, but is suggestive of thickening round the shafts of the bones beginning above the epiphysal junctions.

Gradually the bulk of the limbs affected becomes visibly increased. No fluctuation can be obtained, but a little cedema may now appear on the feet. The position of the limbs becomes somewhat different from what it was at the outset. Instead of being flexed they lie everted and immobile (this is very well shown in Dr. Carpenter's case) in a state of pseudo-paralysis. The knee-jerks may be obtained, and likewise the plantar reflexes. About this time, if not before, great weakness of the back becomes manifest.

A little swelling of one or both scapulæ may appear and the upper limbs may show changes. . . . There is symmetry of lesions, but it is not absolute; and the limb affection is generally consecutive, though the involvement of one limb follows very closely upon another. The joints are free. In severe cases another symptom may now be found, namely, crepitus in the regions adjacent to the junctions of the shafts with the epiphyses. The upper and lower extremities of the femur and the upper extremity of the tibia are the common sites of such fractures; but the upper ends of the humerus may also be so affected. Rarely a fracture occurs in the femur at some distance from the epiphyses. A very startling appearance may be observed at this period in the front of the chest. The sternum, with the adjacent costal cartilages and a small portion of the contiguous ribs, seems to have sunk bodily back, *en bloc*, as though it had been subjected to some violence, which had fractured several ribs in front and driven them back. Occasionally thickenings of varying extent may be found on the exterior of the vault of the skull, or even on some of the bones of the face. There is great tenderness, but, as with the other lesions, there is no local heat, and there is seldom change of colour. Here also may be mentioned a remarkable eye phenomenon. There develops a rather sudden proptosis of one eyeball, with puffiness and very slight staining of the upper lid. Within a day or two the other eye presents similar appearances, though they may be of less

severity. The ocular conjunctiva may show a little ecchymosis or may be quite free. With respect to the constitutional symptoms accompanying the above series of events, the most important feature is the profound anæmia which is developed. Whatever there may have been at the onset, when once the limb affection has become pronounced the pallor becomes intensified. The anæmia is proportional to the amount of limb involvement. As the case proceeds there is a certain earthy-coloured or sallow tint, which is noteworthy in severe cases, and when once this is established bruise-like ecchymoses may appear, and more rarely small purpuræ. Emaciation is not a marked feature, but asthenia is extreme and suggestive of muscular failure. The temperature is very erratic; it is often raised for a day or two when successive limbs are involved, especially during the *tense* stage, but is rarely over 101° or 102° F. At other times it may be normal or subnormal.

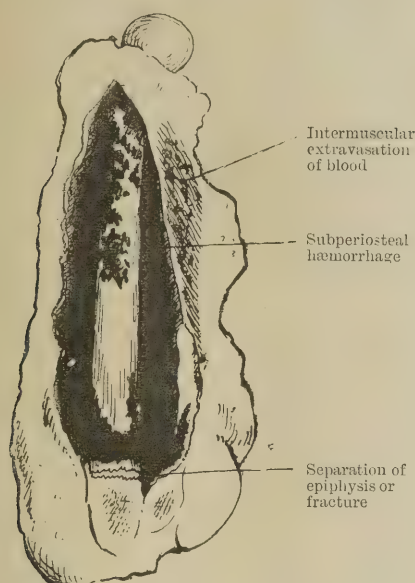
Digestive tract.—The state of the gums is very important. Their condition depends upon the number of teeth the child has erupted. Sponginess of the gums, fleshy swellings even projecting from the mouth, giving rise to bleeding and fœtor. With fewer teeth these symptoms are less definite, and when there are no teeth the gums may be normal. There may be bleeding of the nose. Blood may be passed per rectum, or in the urine, and the latter may contain albumen. The urine is sometimes scanty, and may contain concretions of uric acid. Excepting in fatal cases the heart and lungs give rise to no symptoms, but lung troubles or diarrhœa may bring about a fatal issue. It sometimes relapses and may run a chronic course over many months; but the average duration, when uninfluenced by treatment, is from two to four months.

Condition of limbs.—The essential lesion is a subperiosteal blood extravasation, with its secondary consequences, causing new bony deposit round the bones of the lower limbs, which deposits may take many months to be absorbed.

Describing a case Dr. Barlow states: 'On section of the ribs it was found that the bony material was a mere shell, and there was an extensive endosteal extravasation.' . . . 'The visceral changes were not very important.'

Fractures result from lack of support outside the shaft in consequence of the stripping up of periosteum, also in advanced cases the hæmorrhage into the centre of the shaft with the extensive absorption of trabecular structure.

'In no bones is this internal absorption, combined with extravasation outside and inside, carried to a greater degree than in the ribs, and this explains the



extraordinary deformity of the chest to which I have referred, which deformity when it occurs is almost pathognomonic of the disease in question.'

True nature of the disease and its etiology.—There is much room for divergence of opinion. Clinically many symptoms of rickets exist. Beaded ribs, large epiphyses, and delayed teething. Sweating of head and laryngismus stridulus. But Sir William Jenner had never seen in rickets the hæmorrhages which exist in scurvy-rickets.

There were no symptoms of congenital syphilis, and no family history of excessive bleeding; but Dr. Barlow considers that all the symptoms point to a condition of scurvy.

'The majority of infantile cases have been found in healthy homes, and amongst good surroundings.'

Food.—All the cases were artificially fed, and not suckled. In the majority preserved foods had been given: various proprietary infant foods, prepared by the addition of water to certain powders; different forms of condensed milk, and the proprietary foods made with condensed milk; fresh milk greatly diluted mixed with proprietary foods. These diets are considered scorbutic diets.

'For the condensed milk let fresh cow's milk be substituted. For extremely diluted cow's milk let undiluted fresh cow's milk be substituted, as, for example, a full pint for a child six months old.

Instead of the proprietary food let some sieved potato be mixed with the milk every day, and a tablespoonful of meat-juice or gravy likewise. Finally, let a tablespoonful of orange-juice or grape-juice be administered every day in divided doses, mixed with water as required. The result of these very simple alterations has been in two or three days quite startling. As a rule, the food is taken greedily and without indigestion. The child becomes much more contented, the tenderness of the limbs rapidly diminishes, the sponginess of the gums almost immediately recedes, the pallor becomes notably less, if there has been any renal hæmorrhage it ceases, fresh ecchymoses rarely appear.'

Dr. Ashby, of Manchester, has also paid considerable attention to this subject. He read a paper at the Manchester Medical Society on November 17, 1894, in which he referred to more than thirty cases.

The dietary of these patients previous to the attack had been as follows. None had been fed at the breast, several had been fed with fresh milk and some starchy food, but the majority with pancreatised milk.

Another point to which he drew special attention was the fact that he had known the disease to develop while the child was taking fresh boiled milk, and in one case raw beef juice, in another a raw egg daily, and in one case boiled mashed potatoes.

Dr. Ashby, whose experience at the General Hospital for Sick Children, Manchester, is very extensive, does not consider that the presence of scurvy in these cases has been certainly proved. He states that in some cases at least there has been no deprivation of fresh food, and that there is much to be said in favour of the view that there is a close connection between this hæmorrhagic condition and acute rickets.

Dr. Ashby, in the 'Practitioner' for December 1894, states: 'We see infants between the ages of six months and two years, and perhaps most frequently of the ages of eight months or nine months—who have perhaps suffered much from bronchitis, and who have been fed, either from necessity or choice, on anything but an ideal diet—very anæmic with rickety bosses on the ribs, the chest falling in at every inspiration, while the long bones or the epiphyses are more or less tender. Such cases pass muster as acute or severe rickets. Perhaps after a few days the urine is coloured and stains the napkins, and it is evident that blood is oozing from the capillaries of the kidney or bladder. Or there may be evidence of bleeding beneath the periosteum or elsewhere. We naturally

ask, Where does rickets end and scurvy begin? Why assume the presence of a new disease the moment that a tendency to bleed is added to an anæmia? Do not we see the same thing happen in other diseases? In the most severe cases of hereditary syphilis in young infants, it is not uncommon to see a tendency to bleed, the blood oozing from the cracks in the lips and from the scabs about the mouth and nose. Are these cases of "scurvy syphilis"? Again, in tuberculosis in children there is often marked anæmia and a tendency to bleed from the gums and elsewhere, though there has been no question of a deprivation of vegetables or fresh food.'

In connection with this subject it is interesting to find that Cheselden, in the introduction to his 'Osteographia,' makes the following statement:

'In a child who died of a spotted fever, I found in many of the bones a perfect ecchymosis, and in several places, particularly on the os humeri and os femoris, a quantity of blood between the periosteum and the bones. I am inclined to think that impostumations and carious bones, which sometimes follow fevers and the small-pox, may proceed from such extravasations of blood.'

THE ANATOMICAL DEMONSTRATION



THE Anatomical Demonstration painted by Rembrandt in the year 1632 is held to be one of the very best works of this great master.

It is now at the Hague, where it hangs in a good light, and the figures and faces are so remarkably life-like that

the attention of the visitor is immediately attracted to it upon entering the room. Our illustration is a copy of an etching by Cornilliet issued in 1851. The picture represents the celebrated Dutch surgeon Nicholas Tulp, Professor of Anatomy at Amsterdam.

He is demonstrating a dissection of the forearm to eight other surgeons, whose names are indicated below the plate.

There is another etching of this picture by F. De Frey (1798), and in the account of Tulp attached to a copy of this etching in the Medical and Chirurgical

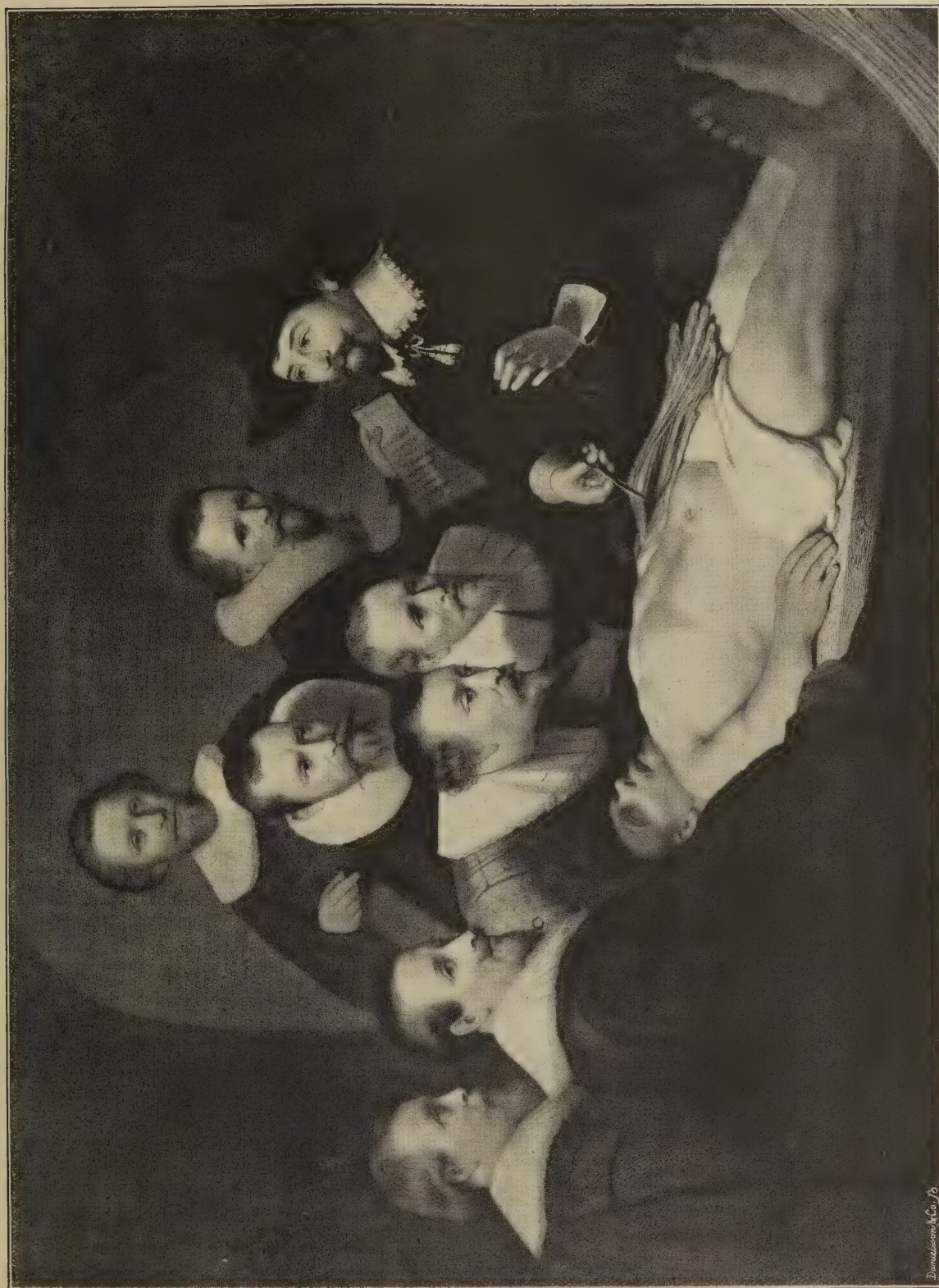
Society's collection of portraits is the following description:—

'Nicholas Tulpus. Born at Amsterdam 1593, and died there 1694. He was the son of Pierre Dirx, a rich merchant, but he bore the name of the house of his father, in the front of which was sculptured a tulip, *Hollandaise* "Tulp." He studied medicine at Leyden, became M.D. there, and practised in his native city during fifty-two years. He spoke with such manly courage in the Council Chamber at the time Louis XIV. invaded Holland in 1672 that he materially assisted in hindering its being delivered to the French.

'His only work is "Observationes Medicæ, 1641-1685." He adopted as his emblem a lighted taper with the words "Aliis inserviendo consumor."

'His portrait has been painted by Rembrandt, and was formerly preserved at the Theatrum Anatomicum of Amsterdam, but has been placed since 1828 in the museum at the Hague. Tulp was the father-in-law of the Burgomaster Jean Six, whose portrait is one among the most celebrated of Rembrandt's etchings.'

This picture has also sometimes been called the 'School of Anatomy.' It was painted for the Amsterdam School of Surgeons, and was intended to adorn the dissecting room at Amsterdam, with other similar pictures. Burger ('Musées de la Hollande') describes it as the truest and most life-like representation of the 'working of intellect' ever produced. He writes as follows: 'This picture represents the celebrated anatomist Nicolaus Tulp, a friend and patron of Rembrandt, in a vaulted saloon, engaged in explaining the anatomy of the arm of a corpse. He wears a black cloak with a lace collar, and a broad-brimmed soft hat. With his half-raised left hand he makes a gesture of explanation, while with his right he is dissecting a sinew of the arm of his subject. The corpse lies on a table before him. To the right of Tulp is a group of five figures; and two other men are sitting at the table in front. These listeners are not students, but members of the guild of Surgeons of Amsterdam. They are attending to the lecture with very various expressions. They are all bareheaded, dressed in black, and with turned-over collars, except one who still wears the old-fashioned, upright ruff. There are, perhaps, other persons present in the hall, as Tulp appears to be looking beyond the picture, as if about to address an audience not visible to the spectator; and it is here worthy of remark that Rembrandt's compositions are never imprisoned in their frames, but convey an idea of a wide space beyond them. It



Rembrandt pinxt. 1632.
Davidson & Co. N.Y.

JACOB
 KOOLVELD.

ADRIEN
 SLABBRAAN.

FRANS VAN LOENEN.
 JACOB BLOCK.
 JACOB DE WITT.

H. HARTMANS.
 MATHYS FALCO N.

NICHOLAS TULP.

THE ANATOMICAL DEMONSTRATION.

Cornellia sculpt. 1861.

is somewhat singular that the spectator seems hardly to notice the corpse lying before him at full length, the feet of which he can almost touch, although it is strongly lighted in contrast to the surrounding black garments, and most faithfully presents the peculiar hue of a dead body, leaving no doubt that it was painted from nature as well as the living heads. The admirable art of the composition consists in its power of riveting the attention to the living in the presence of death. The painting is signed at the top "Rembrandt f. 1632."

Epitomised Lectures and Papers

LETTESOMIAN LECTURES ON THE COMBINATIONS OF MORBID CONDITIONS OF THE CHEST

DELIVERED AT THE MEDICAL SOCIETY OF LONDON ON JANUARY 21, 1895
By FREDERICK T. ROBERTS, M.D., F.R.C.P. LONDON.

This interesting lecture covers 5½ pages of the 'Lancet,' and we can only give a very short account of the matter therein contained.

As the title denotes, Dr. Roberts discussed the various combinations of different diseased conditions which may occur simultaneously in one or other, or all, of the thoracic viscera, and these combinations are well known to those who have had much experience. Yet, he urged, they are by no means so generally recognised and appreciated as they ought to be.

Every medical man knows that in practice it is quite exceptional that cases assume the cut-and-dried character defined in books, and Dr. Roberts's remarks will be found valuable by calling attention to a large variety of combinations which may occur.

Conditions of the chest walls and diaphragm.—As regards the external appearance, he referred to the difference between œdema and deformity, the significance of old marks of cupping or leeching, or of tapping for pleural effusion and empyema. The association of superficial conditions with those within the chest, as indicated by various painful sensations; and he also dwelt upon the wasting of the superficial tissues and muscles; softness of the ribs; rigidity of the chest walls; abnormalities in shape and capacity; and conditions affecting the diaphragm.

Slight or indefinite intra-thoracic changes.—Under this heading Dr. Roberts referred to conditions which were not difficult of diagnosis, but which, on account of the slowness of their symptoms, were often overlooked. He alluded (1) to localised pleuritic or possibly pericardial adhesions; (2) ill-defined changes in the pulmonary structures, such as senile atrophy, lesser degrees of over-distension of the lungs, or even of true vesicular emphysema, commencing degeneration, impairing the pulmonary elasticity and expiratory force, and limited fibrotic changes, the remains of a cured phthisis or other past lesion; (3) the lesser degrees of atheromatous degeneration of the thoracic aorta and its main branches; (4) atrophy or early degenerative changes affecting the heart walls, or infiltration of its muscular tissue with fat.

Combinations of changes belonging to (1) and (2).—In these cases the superficial structures are more or less wasted; there are no gross lesions in the lungs, but these organs are wanting in normal elasticity, and tending to degeneration. There is a suspicion of a fibrotic change here and there; sometimes indications of commencing atheroma of the aorta, or the heart is feeble in its action, and is probably small. The lecturer thought that these cases ought to be distinctly recognised, although it was impossible to apply to them any particular designation, being possibly vaguely known as 'weak chest.' The serious nature of their condition is indicated when patients suffer from acute bronchitis or a pneumonic attack.

Secondary effects of certain intra-thoracic physical conditions.—As illustrations of these conditions the author mentioned a large fluid or gaseous accumulation in the pleural cavity, or a much thickened and extensively adherent pleura; pericardial effusion; marked general emphysema, and an intra-thoracic tumour of any description, whether aneurysmal, solid, or of other kinds.

He further noted that, when from any cause the action of either lung is extensively interfered with, the opposite one almost necessarily undergoes compensatory enlargement, a condition which may be mistaken for a morbid process.

Combinations of chronic diseases or their remains.—The 'remains of chronic diseases' is meant to describe certain morbid changes (not active) which may be due

to destructive or other injurious processes, and of an attempt to repair the damage. Under this title are arranged a variety of conditions; first (A) respiratory apparatus. Chronic pleuritic cases may be very simple, but are sometimes very complicated. There may be adhesions, thickening, localised collections of fluid, or possibly the remains of a pneumothorax or pyopneumothorax, or tuberculous or malignant infiltration, so that chronic pleuritic cases may be far from simple. Chronic pulmonary cases in practice may come before us under the following aspects:

Phthisical.—A great number of conditions are described in the paper referred to. Then, again, phthisis may be associated with bronchitis, or there may be tuberculous ulcers in the larger bronchi or the trachea. Some parts of the lungs may be free from phthisis, and then there would be compensatory distension, or so-called emphysema, and, possibly—and this is important—an aneurysm may develop on the branch of the pulmonary artery within the cavity. Then, again, in mechanical phthisis there is the additional element of the solid foreign particles infiltrating the lung tissues.

Emphysematous and bronchitic cases.—When the lungs are more or less enlarged and distended, and their tissues have undergone certain structural changes, chiefly evinced by impairment or loss of elasticity, the condition is very likely to be associated with a chronic bronchial catarrh, or bronchitis of some kind.

Many such cases are comparatively simple, but, the nature of the cases being overlooked, they may become very complicated. The points to be determined are the degree of distension of the lungs, the amount and nature of the changes in their tissues, and how far their elasticity is impaired, the kind of bronchitis, with its amount and mode of distribution, and the state of the chest walls. If the bronchi are long affected in this manner, the walls of these tubes will probably in time undergo serious permanent changes, their mucous lining becoming disorganised, and more or less extensive bronchial dilatation established. The possibility of bronchiectasis should be remembered, because extensive emphysema will often completely obscure its physical signs.

Chronic pneumonic cases.—There are the well-known cases of chronic interstitial pneumonia, which are described under the terms 'cirrhotic or fibroid lung,' 'fibroid phthisis,' &c. The fibroid change is generally limited to one lung.

Syphilitic cases should also be remembered.

Mixed cases.—Dr. Roberts stated that his observa-

tions had led him to the conclusion that not a few cases regarded as bronchitic are in reality phthisical, and that they are so recorded in death certificates. This oversight is especially liable to happen in the case of patients advanced in years.

Pleuritic and pulmonary cases.—Definite attacks of pleurisy with effusion, or perhaps empyema, produce conditions on the lungs which may remain persistent, though there is no further active disease. The lung may be condensed or collapsed, bound down by adhesions, and may remain quiescent for an indefinite time, or in chronic phthisis one lung may be adherent beyond the actual pulmonary disease, and the opposite organ may be partially fixed.

The lecturer then proceeded to deal with (B) Pericardial, cardiac, and vascular; (C) Respiratory and circulatory; (D) Special diseases; (E) Independent disease; (F) Highly complicated conditions.

THE PREVENTION OF TUBERCULAR INFECTION FROM MEAT

The risk which pertains to the eating by human beings of the flesh of tuberculous animals is now recognised as very considerable, and the difficulties in the way of excluding all such flesh from the meat market are almost, if not quite, insuperable.

In Berlin, experiments have led to the employment of an apparatus for sterilising all meat, so that, although it may have been derived from tuberculous animals, it may be made innocuous.

At the Berlin Freibank an apparatus invented by Herr Rohrbeck is used, upon the principles emanating from the experiments of Dr. Hertwig.

The meat is placed in a large chamber and subjected to high steam pressure, being thus penetrated by heat and sterilised.

The experiments upon which this process has been founded are described by Mr. A. M. Trotter, M.R.C.V.S. Edin., in the 'Veterinarian' for March 1895.

These experiments were conducted under the direction of Dr. Hertwig. To make the test as severe as possible, the whole side of an ox and several hundredweights of lungs, livers, &c., were used. The meat was cut into pieces weighing from three to six kilos, but was not otherwise incised, except when 'considerably enlarged by pathological processes.' Thermometers were inserted into the centre of each piece. Some of the largest pieces were tested with a contact thermometer, which is so arranged that when

the temperature has reached 100° an electric signal is set in motion and indicates the fact.

Lean flesh was found the more difficult to penetrate with the heat. After being subjected to this steaming process, the meat is perfectly safe for human food.

Guinea-pigs were inoculated with the tuberculous material after subjection to the effect of the steriliser, and no trace of tubercular lesion was found afterwards, whereas those guinea-pigs inoculated with the uncooked material were found to be tubercular in a high degree.

So successful has this process of sterilisation been in Berlin that the authorities are selling the meat so cooked freely at a moderate price, and the poor of Berlin and in surrounding districts flock to the abbatoirs to buy it. It is said to be very agreeable, and that the soup produced is remarkably good.

COMPLIMENTARY DINNER TO SIR JOHN E. ERICHSEN, SIR J. RUSSELL REYNOLDS, AND SIR JOHN WILLIAMS

This dinner was a great success, and would doubtless have been even more largely attended had a general invitation been issued. As it was the particularising of University College Hospital left out a large number of friends of the Baronets who would have liked to take part in paying a compliment to men who have so well earned the honourable distinction which has been conferred upon them.

Lord Reay, who presided, proposed the health of the three distinguished guests in eloquent terms.

In replying Sir John Erichsen, while admitting that the distinction he had received was 'most gratifying,' yet very pertinently added that 'It comes too late.' This is a fact which we all acknowledge, and we expressed the same opinion in January when we referred to the new creations.

Sir John Russell Reynolds, in returning thanks, made one of those terse, pithy, and eloquent speeches at which he is so apt, and Sir John Williams followed with some very appropriate remarks.

The Practitioner's Note Book

Chronic renal disease and alcoholism in connection with insanity.—Dr. Hubert Bond, Pathologist and Assistant Medical Officer, London County Asylum, Banstead, in

a very able and interesting paper¹ which deals with these subjects, makes the following statement:—

The report of the Commissioners in Lunacy for the year 1894 shows that during the five years 1888 to 1892 inclusive the yearly average number of admissions into the various asylums in England and Wales was 7,793 of the male sex, and 8,246 of the female sex, and that the percentage of these set down as caused by intemperance in drink was 20·5 for the former and 8·1 for the latter, or rather more than 14 per cent. of the total admissions of both sexes. The annual reports of individual asylums show a wide variation on each side of this figure. Thus, from the reports before me, the lowest percentage recorded is 5, and the highest is 30, including both sexes, while in the male sex the number sometimes goes up to over 40 per cent. It is very questionable, however, if the whole truth, or anything like it, is represented in these statistics. It so often happens that no trustworthy history of many asylum cases can at all be obtained, and these are then recorded in the table of causes as 'Unknown.' The number of these unknown causes is usually highest in those reports which show the lowest proportion of cases due to alcoholic excess. How many of these cases should fall under the heading of intemperance?

VARIETIES OF INTESTINAL OBSTRUCTION DEPENDENT ON GALL STONES, WITH A SERIES OF CASES

An interesting paper was read by Mr. Mayo Robson on January 22, 1895, at the Royal Medical and Chirurgical Society, upon the above subject.

'He remarked that the usually accepted form of obstruction was only one of four varieties of intestinal obstruction depending on gall stones, which he proposed to classify as follows: (1) The form dependent on local peritonitis in the region of the gall bladder leading to paralysis of the bowel. Two illustrative cases were related, both of which yielded to general treatment without operation. (2) Volvulus of the small intestine dependent either on the violence of the colic caused by an attack of cholelithiasis, or on the contortions induced by the passage of a large concretion through the small intestine. Two cases were related in which the author performed laparotomy and untwisted the volvulus, recovery following in each case. (3) Mechanical obstruction due to the passage of a large concretion through the small intestine. Two instances were given in which enterotomy, with removal of the concretion, was followed by recovery. (4) Obstruction depending on adhesions or on stricture, the result of past gall stone attacks or of healing fistulae. As this form was

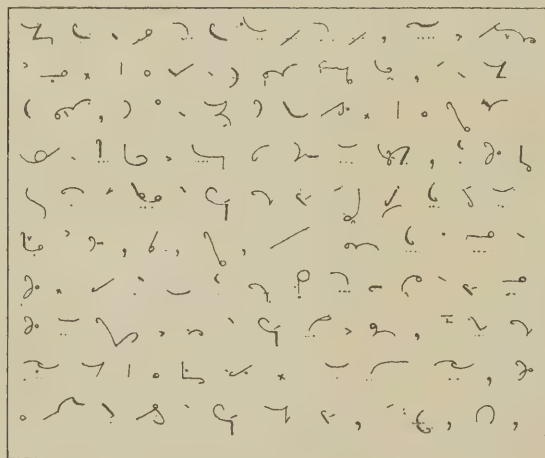
¹ *British Medical Journal*, March 2, 1895.

dependent only on the antecedent cause, instances were only referred to and not related, since cases of this kind could be more fully discussed in a paper dealing with the subject generally. Mr. Robson, in answer to questions addressed to members of the staff or to the registrars of a number of large metropolitan and provincial hospitals, had received communications from institutions representing about 80,000 patients, and out of this number only four cases of intestinal obstruction from gall stones had been recorded during the past twelve months, proving that this form of obstruction was far from common, and all the four cases coming under the third form described in his paper seemed to prove that it was the commonest.'

SHORTHAND FOR MEDICAL MEN

There can be no question as to the very great advantage of a knowledge of shorthand to medical men. The fact that all their work is personal makes time of great value, and many an interesting case or subject may be recorded with the aid of shorthand which the time at disposal would not allow of by other methods.

Great credit is due to those who have instituted the Society of Medical Phonographers, and we produce below a facsimile illustration of a half page from



the February number of the 'Phonographic Record of Clinical Teaching and Medical Science' which is published monthly by this society.

The shorthand of this journal is clear and otherwise well produced, but we think it would be an improvement if the style could be brought more up to date. In the number before us we notice several

old-fashioned outlines which remind us of tenth edition phonography, and others which have long since been generally discarded on account of their unnecessary length or theoretical inaccuracy. We should also like to see phraseography more commonly employed, as there can be no doubt that well-chosen and well-constructed phrases can be read with even greater facility than when the outlines are disconnected. However, the objects of the society are deserving of all praise, and we hope it may succeed in making the study of shorthand more common among medical men.

Our illustration is part of an interesting paper by Mr. Charles W. Cathcart, F.R.C.S., Assistant Surgeon to the Royal Infirmary, Edinburgh. The subject is as follows:—

ON THE QUENCHING OF THIRST BY THE USE OF ENEMATA

The author remarks upon the well-known absorbent power of the rectum in respect to the introduction of pre-digested food when the natural method of feeding by the mouth is impossible. In cases of stricture of the œsophagus or in inflammation, malignant disease, &c., it is not often that thirst is a great trouble, because water can generally be taken, up to nearly the last, but in instances where the infusion of saline fluid directly into the blood is required in collapse, from sudden loss of blood, the enormous power of absorption by the rectum is of great value.

In cases of abdominal operation, whether for hernia or for any other cause, fluids taken by the mouth are often contra-indicated, the deprivation of solids for a few days may be no great hardship, but the thirst often becomes terribly severe. Under these circumstances injection into the rectum of fluids—especially of water, or weak salt and water—is of immense value. The rectum should be cleared of fæces first and then water or saline fluid should be slowly 'injected every two hours, or every half hour or hour, according to the requirements of the case. It is better to use small quantities often, and to inject them slowly, so as to insure their being retained. It is perhaps hardly necessary to draw attention to the fact, well ascertained in physiology, that thirst depends far more on the absence of fluid from the blood and tissues generally than upon any dryness of the throat, which is, perhaps, rather a symptom than a cause of thirst. We all know that free sweating or great loss of blood causes thirst in

proportion to the amount of fluid lost to the system, quite apart from the manner in which it is taken away. In like manner thirst is relieved by the reception of fluid into the blood, and thus also into the tissues generally, apart from the channel through which it enters, although the natural one gives at the same time the greatest satisfaction at the moment to the sufferer.

Mr. Cathcart does not claim originality for this suggestion, but he urges that the method is by no means so well known as its merits deserve. He concludes as follows: 'It is, of course, easy to see that such kinds of cases are fairly common, and it has been a great comfort to see the raging thirst relieved in a few hours by rectal enemata. From want of the knowledge of this method, the nurse or house surgeon had been at a loss how to sail between the Scylla of thirst and the Charybdis of the ordinary means of relieving it.'

CLINICAL NOTES FROM PARIS

Mr. Lucas-Championnière has lately published a book 'On the Treatment of Fractures by Massage and Passive Movement.' Referring to it at the Academy of Medicine, he states that this novel treatment of fractures is founded on an apparent paradox, namely, that a certain amount of movement not only is harmless, but actually tends towards the repair of fractures and the formation of callus.

The book contains well-supported clinical proofs of this assertion, and is the result of careful observation extended over many years. The author finds that certain fractures, such as those of the radius and fibula, give a quicker and better result under massage and passive movement than under the current method of rest. He goes much further, however, and shows that fractures of the elbow of the upper extremity of the humerus, of the knee, and others, which under the classical treatment have invariably given rise to more or less infirmity, will unite rapidly and completely even in elderly patients by leaving the limb absolutely unconfined. Numerous devices are indicated by which massage can be applied to regions which have seemed unattainable and in which he has found this treatment most useful.

An early and constant sign of meningitis.¹—Dr. J. Simon, Physician to the Children's Hospital, points out that before the classical symptoms of depression appear, such as a lowered temperature, a slow and irregular pulse, or well-marked irregularity of the respiratory rhythm, he has been led to a diagnosis by two factors:

1. An abnormal respiratory type which he has observed

from the very commencement of the disease. The child breathes with the lower portion of the thorax, the upper part seems fixed or moves only at rare intervals and to a small extent. At times this type is reversed, the upper part being the more active.

2. The dissociation of the diaphragmatic and abdominal movements. By watching the umbilicus (the child lying on its back) one notices that, instead of rising with each inspiration, it either remains stationary or is depressed. In the former case the diaphragm is contracted and does not descend, hence the immobility of the abdominal walls. In the latter case the muscle is passive and rises in the thorax as the ribs are raised and a vacuum formed. Besides these phenomena, one notices at irregular intervals twitchings in the epigastric region due to diaphragmatic contractions quite independent of the thoracic movements.

Needless to say, these signs have to be sought with much care, as they are easily overlooked.¹

Erysipelas treated by traumaticine and ichthyol.—Dr. Juhel Rénay, physician to the Aubervilliers Hospital for Infectious Diseases, describes a series of cases. Professor Auspitz, of Vienna, and S. Klein had found that the two substances gave good results separately. The author combined them by dissolving one part of fresh gutta percha in ten parts of chloroform and adding three parts of ichthyol. The mixture forms a syrupy brownish-black fluid, which is applied with a stiff brush to the healthy skin round the elevated surface affected. It forms a thin elastic layer, which exerts a certain amount of pressure on the subjacent tissues after evaporation of the chloroform (thus differing from collodion). Its application only gives rise to a transitory sensation of heat, which is more marked should the chloroform be in excess, but in neither case leaving any trace behind. If there is a well-defined patch of erysipelas, he paints a band 2·3 cm. wide all round it, the application being made on healthy skin. If the œdema is not well defined, he is guided by the diminishing sensitiveness to pressure as the healthy zone is reached. Where the scalp is involved, shaving is necessary before application of the remedy, as any intervening hairs will prevent compression of the tissues, which is an important factor. In the ambulatory form, the author found it necessary on several occasions to draw the protective band two or even three times on successive days before the advancing disease was stopped.

The results show that in 60 per cent. of primary uncomplicated cases of erysipelas of the face (not attenuated by former attacks and not including relapses, in which cases the success is invariable), the attack was cut short; the ambulatory forms are most refractory, but generally yield much sooner than under other treatments.

The advantages claimed for this method are that it is painless, harmless, cuts short the attack, lowers the temperature, and relieves general symptoms.

¹ *Gaz. des Hôpitaux*, February 28, 1895.

¹ *Bulletin Gén. de Thérapeutique*, February 23, 1895.

METHODS OF EMPTYING AN OBSTRUCTED BOWEL

A very practical paper appears in the 'British Medical Journal,' January 26, 1895, by Mr. W. Thornley Stoker, president of the Royal College of Surgeons in Ireland.

Enemas.—Mr. Stoker is very much opposed to the long enema tube (O'Beirne's). He is an advocate for the use of warm water alone, and uses the following simple apparatus in giving enemas. It is an ordinary Higginson's syringe, to the nozzle of which a No. 12 or 14 red rubber catheter has been attached. The use of this is absolutely safe and quite painless. Mr. Stoker describes his plan of operation as follows:—

'The patient lies on his back or left side with the pelvis raised so as to facilitate the passage of fluid into the sigmoid and descending colon. Eight or ten gallons of warm water may be employed at one sitting. The surgeon sits on the right of the patient's bed, introduces the end of the tube, and retains it in position with his left hand, while with his right he holds the other end of the tube, into which the funnel is inserted. The tube is introduced from three to nine inches, and should occasionally be moved up and down in the anus by the left hand. An assistant pours water into the funnel, and the pressure may be varied and adjusted by the height to which it is raised by the operator. The left hand can be used at any moment, when the pressure in the rectum becomes painful, to pinch the tube and stop the flow. When as much water has been introduced as can be borne, the funnel is removed, that end of the tube lowered to a basin placed on the floor, and the fluid allowed to run out of the bowel. By repeated operations of this kind large quantities of water may be used, and the bowel emptied without the patient being exhausted by straining or by the necessity of changing his position. The solution of fæces and expulsion of flatus are assisted by the pushing in and out of the tube which I have indicated, and by the varying hydrostatic pressure caused by alternately raising and lowering the funnel at the free end of the tube.

'The advantages of this method over older ones are as follows:

- '1. The tube is soft and cannot cause injury.
- '2. The fluid pressure can be regulated to a nicety, and cannot be made excessive, as, if undue pressure threatens, regurgitation into the funnel takes place.
- '3. Enormous quantities of water can be used.

'4. The currents created by alternating hydrostatic pressure have a powerful solvent effect on the fæces.

'5. The operation necessitates no exertion on the part of the patient, no change of position, and can be carried on for a long time without causing exhaustion.'

This is only one of the many points dealt with in this excellent paper.

THE TREATMENT OF ASTHMA BY MASSAGE AND OTHER MOVEMENTS

In Vol. V. of Ziemssen's 'Handbook of General Therapeutics,' under 'Therapeutics, Gymnastics, and Massage,' by Professor Busch (translation published by Messrs. Smith, Elder & Co., 1886), it is stated that 'the inclination to asthmatic attacks may be diminished by a mild, long-continued gymnastic treatment especially directed to the respiratory movements of the thorax.'

Dr. Orrick Metcalfe publishes an article ('New York Medical Record,' January 12, 1895) upon the great benefits to be derived from this treatment. He uses not only ordinary massage, but pressure upon the sides of the thorax combined with a very limited degree of rotary motion. These operations are continued from ten minutes to half an hour, according to the sensitiveness of the patient. Generally, he says, 'after a few minutes spent in manipulation the patient is requested to cough, and his success in expelling the mucus determines the conduct of the doctor as to the repetition of the treatment.'

These manipulations are repeated every day. He had already found this treatment useful in pneumonia and bronchitis, and was induced to try it for asthma after being told by a patient that his severest attack had come on after laughing. 'It occurred to me,' he writes, 'that the convulsive action of the muscles engaged in laughing was the cause of trouble, and that possibly an examination would reveal an unhealthy condition of those muscles' on the sides of the chest.

The manipulations soon produced an enormous expectoration of mucus from the lungs, followed by great relief. Other cases were dealt with in the same manner, with universally good results. He had arrived at the following conclusions: 'Whenever the seat of trouble is such that *râles* can be detected, manipulation will enable the patient to expel the mucus, after which the *râle* is no longer heard and the disposition to clear the throat ceases.' This is especially the case in asthma connected with hay fever.

PURE DRINKING WATER

This subject has to be dealt with from several points of view. Firstly, the source of the supply from which the water is taken; secondly, the plan of filtering adopted by water companies; thirdly, the delivery of the water into the houses of the consumers, and, fourthly, the treatment of the water by the consumer. Upon the present occasion we propose to deal with the fourth point.

However good the water may be as supplied by the water company, there is always a possibility of contamination either by a leakage of the supply pipes admitting sewage contamination or other deleterious matters, and in other ways, so that the use of a domestic filter has been a desideratum in a well-regulated household.

Boiling as a method of purification.—Scientific men have for many years past doubted the efficiency of the ordinary filter for purifying water, and the boiling of it has been always urged as the most certain, or only certain method of purification.

The most practical way of carrying out this method is to place water, which has been boiled, in an open vessel—a large-mouthed jug, for instance—cover it with a clean cloth to protect it from floating particles of dirt, let it stand in an airy place for a few hours, and then pass it through a charcoal or spongy-iron filter. The water will then be perfectly safe and not unpleasant to drink.

Although under these circumstances the filter does not collect bacteria from the water, as happens when unboiled water is passed through it, yet it is obvious that filters, like everything else, will get dirty and require cleaning, especially in London and other large towns. The boiling or baking of the filtering material has sometimes been recommended, but it is always desirable to renew such material periodically—probably once a year.

The objections raised to boiled water have been as follows:—

- (1) Taste. Many people say they dislike the taste of boiled water, but this may be almost entirely removed by aeration, as above described.
- (2) Water having been boiled seems to be more susceptible to contamination by bacteria floating in the air or otherwise than unboiled water, or in common language it ‘does not keep well.’ If allowed to remain in a bottle for some days it is apt to become cloudy and show a development of bacteria, although these bacteria may have no deleterious properties.

(3) The chief objection to this plan is the difficulty in having it carried out, and the possibility of the precautions being neglected just at the time when they are most necessary.

Filters.—Until recent years the sole purpose of the water filter has been to oxidise nitrogenous organic matter, and so to convert putrescible matter into harmless compounds such as nitrates, and the sole test of purity was a chemical analysis. Recent inquiries have shown that filters of this class (oxidising) do not possess sufficient mechanical filtering power to remove the bacilli or allied organisms which are capable of propagating specific diseases, and a water which may yield a satisfactory result when examined chemically may yet contain sufficient bacilli to cause a widespread outbreak of typhoid or cholera.

After an elaborate examination of a large number of filters, practically all those in common use, Drs. Woodhead and Cartwright Wood found that the only filters which are capable of arresting the passage of pathogenic organisms are purely mechanical in their action.

The investigations show that our dependence upon other methods of purification are almost entirely fallacious. The ordinary tap water passed through these filters has shown perfect purity during the first day or more, but as time went on the micro-organisms not only appeared to the extent found in the unfiltered water but in much larger quantities, such result occurring from the development of the bacteria while passing through the filter. It is obvious, therefore, that the desired effect was not attained, as the last state of the water was worse than the first, in consequence of the filtering material acting as a breeding-ground for the bacteria.

Two filters alone were at first found to give good results, but when the experiments were prolonged to from three to six weeks one of these two showed contamination to occur after from two to ten days, whereas the one remaining—the Pasteur-Chamberland filter—continually sterilised the water passed through it. The Pasteur-Chamberland filter has been known for some years in the laboratory in a form which was not applicable to general use. Comparatively recently, however, the principle has been carried out in the form of a domestic filter.

The Pasteur-Chamberland filter.—This filter has been used since 1888 in the French Army, and the results shown by this practical test are very important. In the report of M. de Freycinet, Minister of War,

to the President of the French Republic ('*Journal Officiel*,' June 16, 1889; February 18, 1890; February 12, 1891; February 24, 1892), he states: 'The Pasteur filter has been applied only in those cases where the water supply was bad or suspicious. Wherever it has been introduced, typhoid fever has disappeared, even in the garrisons which had previously been the most often and most cruelly attacked. Whenever, on the contrary, an epidemic has occurred, it has been traced to the accidental contamination of a water supply previously pure, or to the substitution of bad water, in barracks where Pasteur filters were not used.'

The experiences of the French Army during 1891, compared with that of the British Army in 1893, show that the number of cases of enteric fever in the British Army in the latter year was 9.14 per thousand, that in the French Army in 1891 was at the rate of 5.72 per thousand, whereas before the Pasteur filter was used the mortality in the French Army greatly exceeded that in the English.

A great deal of other evidence exists showing that this filter is to be thoroughly depended upon, and it may be useful to the reader to know that the sole licensees and makers for this country are Messrs. J. Defries & Sons, of 147 Houndsditch, London.

Health and Holiday Resorts

GREAT YARMOUTH

To those who know not Yarmouth except through popular report, the place may exist in their imagination as redolent of bloaters and cheap 'trippers,' and true it is that both one and the other are closely associated with this old town, and are very conspicuous at certain seasons.

Yet Yarmouth possesses perhaps the most refreshing air of any town on our eastern coast, and is so large that it is quite possible for the visitor to keep away from both the above objectionable elements.

Yarmouth is not only highly salubrious as regards its air, but it is also an excellent centre from which to explore the peaceful and picturesque rivers and broads of Norfolk.

For those who wish for a complete change from the ultra-fashionable seaside resort, whether it be Scarborough, Brighton, Hastings, or Eastbourne, and yet are fond of seeing 'life,' let them try Yarmouth. The traveller should put up at the Royal Hotel, or take a lodging close by. He can live well at his ease, and quite unrestrained by excess of fashion, and, if he objects to mixing with the common herd, he can avoid the northern parts of the beach, and make use of the Wellington Pier and the long stretch of common extending two miles to the south and ending at the harbour mouth.

For ourselves we like to see something of all classes, and can even take pleasure in watching the free and easy habits of the regular frequenters of the northern beach. Certainly the motto of 'Go as you please' would suit Yarmouth in the tripping season, but then, as we have already observed, the great extent of beach gives room for all.

'If you have a grudge,' wrote Charles Dickens, 'against any particular insurance office, purchase from it a heavy life annuity, go and live at Great Yarmouth, and draw your dividends till they ask in despair whether your name is Old Parr or Methuselah.'

One cause of the healthiness of Yarmouth is thought to be that beneath the subsoil of sand the water rises and falls, thus furnishing an outlet for surface impurities. There is, moreover, a capital system of drainage, and a good water supply obtained from Ormesby Broad, about seven miles from the town.

The Yarmouth bloater is a great institution, and the lightly cured fish split open and fried is a great improvement upon the highly salted and not too appetising specimen procurable in London.

The town itself is very interesting. The market, the curing houses, the narrow streets, many of them wide enough for no other vehicles than the hand-barrows which are peculiar to the place, the river Yare making almost a peninsula upon which the town is built, the busy quays filled with shipping of all sorts, the handsome town hall of which we give an illustration, are examples of the many interesting and unique peculiarities of the place.

Mr. James J. Hissey, in his 'Tour in a Phaeton through the Eastern Counties,' says:—

'Old Yarmouth, in parts, is wonderfully like a Dutch town; the quay especially, with its Flemish-looking houses, its fishing smacks and inland trading wherries harboured there, all of which remind one of

Holland. The grouping of the houses around the quay is most picturesque. I never saw anything so foreign-looking in England before. The place is full of architectural pictures. I wonder Yarmouth is not more considered by artists than it is. I can only suppose that, being in England, readily accessible, painters can see no romance in it, so go abroad for their poetry.'

If the visitor wishes to see the amusements of the vulgar, he should go to the Britannia Pier where the music-hall element predominates, concerts of this class being held there every morning. In various

in 1889 to 15.75 in 1894. Great care is taken to isolate infectious cases of disease, the Notification Act being thoroughly carried out.

The climate has been described by the Rev. J. C. Steward, M.A., F.R.Met.S., whose observations have been taken at Somerleyton Rectory, eight miles from Great Yarmouth. July, August, and September are naturally the best months here, and, however hot the weather, there is always a remarkable freshness in the air. There is an ample supply of sunny weather, and the atmosphere is generally bright and clear.

We have incidentally referred to the Norfolk



TOWN HALL, YARMOUTH, ACROSS THE YARE RIVER

parts of the beach other musical entertainments take place, and on the Wellington Pier the most refined tastes are provided for.

We must not omit to mention the very good recreation ground, which is well situated and very useful to visitors.

The above short sketch will give the reader an idea of the general character of Great Yarmouth, and we will now proceed to deal with the more technical points of the place as a health resort.

The medical officer of health (Dr. John Bately) reports that the death rate has steadily decreased year by year from 20.14 per 1,000 in 1884 to 17.55

in 1889 to 15.75 in 1894. For those who have not the time to make lengthy excursions, a fair idea of the surrounding country can be obtained by making a day trip by steamer up the Bure River to Wroxham and Coltishall, and from there by train to Norwich, and then again by steamer down the Yare to Yarmouth. This can be comfortably accomplished in the day. There is much to interest the antiquarian in and around Yarmouth. Caistor Castle; Sir John Fastolf's old palace, only three miles to the north; Burg Castle—the Garianonum of the Romans—are examples of the many remains of ancient structures.

Therapeutics

Anti-gout tincture.

Tinct. sem. colchici	½ oz.
Tinct. rad. aconiti	„
Tinct. guaiaci	„
Tinct. quinine	„

M. f. tinct. Thirty drops in a glass of ashflower tea three times a day.

(Dujardin-Beaumetz.)

Liniment for gouty joints.—A solution of iodine, iodide of potassium, and glycerine is prepared by Messrs. Arthur & Co., of Berners Street, which is founded on the preparation of Dr. Morton, of Glasgow. It is called Linimentum Iodo-glycerol, and is very useful as an application to gouty joints, or in chronic rheumatic arthritis.

Dr. Morton's fluid for injecting in cases of spina bifida is made as follows:

Iodi	10 grains.
Potassii iodidi	½ drachm.
Glycerini	1 oz.

About half a drachm of this fluid is injected and the opening closed with collodion.

Chrysarobin in psoriasis.—This preparation of tar has been found especially useful. It has not been followed by nephritic disturbance. Dr. Colcott Fox recommends that where the patches are small and disseminated the ointment should be made more adherent and consistent, either by using a mixture of equal parts of vaseline and simple ointment, or vaseline and lanolin (1 to 2) or of a zinc paste.

Eichoff's *Chrysarobin* soap powders are also very good.

Influenza.—Dr. J. H. Barnard (Paris), writing to the 'Lancet' (March 1895), advises the use of phenacetin in four to six grain doses hourly, by means of which he has almost invariably been able to bring down the temperature and rid the sufferer of his pains in a few hours, giving also (every three hours) an effervescent draught, containing ten grains of potassium nitrate. At the same time he believes in the caution given by Dr. Yeo in a former letter against treatment of too depressing a character.

The revision of the 'British Pharmacopœia.'—We are indebted to Mr. Martindale for an advance proof of his remarks upon the revision of the 'British Pharmacopœia' which will appear in his forthcoming edition of the 'Extra Pharmacopœia.' The former editions of Mr. Martindale's book have been excellently compiled and have proved very useful to the medical practitioner, and we are very glad to quote the following observations, with which we entirely agree:—

'Probably the most difficult point in revising the "British Pharmacopœia" will be the subject of **weights and measures**. In our international relations, we can no longer overlook the fact that every civilised country, except Great Britain and Russia, has adopted the metric system of weights and measures, and, with the exception of our own, every national pharmacopœia at present in force, including the Russian, employs this system exclusively for representing the quantities in its formulæ.

'As Great Britain is the principal manufacturer of medicinal preparations for the world, we are in danger of losing a great part of our export trade with South America and Japan, and many dependencies and colonies of nations that have been our principal buyers, unless we can supply them in such a manner as will bear comparison with the formulæ, quantities, and price-lists of other countries.

'In any change to the metric system, we should have to adopt, as has the United States Pharmacopœia, the mode of measuring liquors, for dispensing purposes, in preference to weighing them, as is generally done on the Continent of Europe. The supplement to the French Codex, recently published, has, however, adopted the system of measuring the liquids in the formulæ for its alkaloidal solutions.

'The convenience to a pharmacist afforded by the metric system, of being able to perceive without trouble or difficulty the relationship of liquids by measure to solids by weight, especially in preparing small quantities, where the grain and minim at present in use bear no simple integral relation one to another, would amply compensate for the temporary inconvenience of a change. The doses should, of course, be stated in both the English and metric systems, so that the prescribing of medicines by the English system might still be continued by those medical practitioners who do not wish to adopt the metric system.

'Decimal proportions should as much as possible be adhered to. Even tincture of opium might be made about 1 in 10 in place of 1½ in 20, if crude opium were used in place of dried opium in powder, and the tincture standardised to contain 10 per cent. of morphine. This would cause very little difference in strength. The disadvantage of using powdered opium, which undergoes chemical changes in the process of drying, would thus be avoided.'

Veterinary Notes

Diabetes mellitus in the horse.—An interesting paper appeared in the 'Veterinarian' upon this subject by Mr. E. F. de Jong, F.R.C.V.S. Ed. He points out that diabetes mellitus is seldom met with, or at least diagnosed in the horse, although 'ordinary diabetes' is of common occurrence. He therefore records a case of the former. The symptoms were as in diabetes insipidus; thirst, dryness, and scurfiness of skin, and frequent micturition, but the

chief noticeable point was the syrupy condition of the urine. Upon chemical examination large quantities of sugar were found, the specific gravity being 1,060. The temperature throughout the case was sub-normal.

For treatment Mr. de Jong gave half doses of codeine daily in the form of a bolus. In the course of a week the urine was again examined, and the amount of sugar was found to be materially diminished. Starchy and sugary foods were abolished as far as practicable, and after three weeks the animal had so greatly improved in condition that Mr. de Jong advised the owner to get rid of it, 'which in one sense,' he remarks, 'I regret, as the patient has gone from under my observation.'

The selling of the horse upon the first improvement exemplifies one of the difficulties which veterinary surgeons have to deal with in learning the course of such a disease.

The point which the writer chiefly deduces from this case is the importance of testing the urine in horses more frequently, for the purpose of discovering not only diabetes but other morbid conditions. He refers to diseases of the kidney having been mistaken for laminitis and other conditions.

Professor Williams, in his well-known 'Principles and Practice of Veterinary Medicine,' states that diabetes is often the result of giving deteriorated food, but when appearing without any apparent cause, and when change in diet has no effect in checking it, the disease is generally premonitory to farcy or glanders, and is symptomatic of a breaking up of the tissues of the body.

This observation is one of great importance, and should be kept in mind by every medical practitioner. It is an additional argument in favour of Mr. de Jong's contention that the urine of sick horses ought to be more generally examined.

THE DOCTOR'S HORSE

By W. W.

I do nearly all my work on horseback, and I sincerely pity those poor fellows who sit for hours together in a dog-cart and on these hills and in this sort of weather (written during the severe frost in February), get nearly frozen to death.

The excitement of country practice is its uncertainty. You may imagine your day's work finished, and perhaps be called upon to go twenty or thirty miles, and it is, therefore, good policy to keep an extra horse beyond what you generally require. I hardly ever ride the same horse two days running, as I am sure they last much longer by having proper rest, and then they always come out of the stable fresh and well.

My average mileage for many years in the hunting season (Sundays included) has been about thirty miles a day (but many a day I have ridden sixty), and I generally have four horses in work. The class I buy is a short-legged well-bred cob or gelding, about 15-1 or 2, and up

to 13 stone, but I am very careful to sit behind good shoulders, and to have good sound feet to carry me.

I do not care, in a country like mine, for blood hacks, as they are useless in rough deep ground, and if you do happen to meet hounds they are not the most pleasant of conveyances.

I may add that I save many miles in distance by riding, and in a hilly country no end of time.

The Nurses' Column

NURSING

It has given us much pleasure and satisfaction to read Sir Dyce Duckworth's address upon the modern trained nurse, as given at a meeting of the Royal British Nurses' Association on March 15.

The question chiefly considered was the exact length of time requisite for the efficient training of a thorough nurse. Two years, three years, and even four years, have been laid down by different authorities as necessary. Sir Dyce Duckworth thought it possible to establish two or three grades of nurses with varying remuneration. It was question whether it was possible to recognise more than one grade of nurses in the British Nurses' Association.

It is probable that two years is ample time for efficient training, provided that the nurse is sharp and intelligent, whereas there are some who will not learn their work even in four years.

There are many nurses, and especially among those who call themselves 'lady-nurses,' who never realise the seriousness of the occupation they have taken up, and such will never be fitted for their work, no matter how long their training continues.

The late Dr. James Anderson, who wrote a very useful little book which has just been published upon medical nursing, refers to this subject, stating that many people have an objection to 'lady-nurses,' and he believed that such objection is in many cases well grounded. He thinks that there is too often an idea of superiority to the work undertaken, 'a sense of doing a favour, and such a person needs a servant to attend to her and to do half the work.'

Our own experience leads us to consider a good education and refinement of manners are immense advantages in a nurse, and that she cannot be too lady-like, if she is practical and not 'above her work.'

We deprecate the term 'lady-nurse,' whatever the social position of the individual may have been. The fact of a nurse styling herself a 'lady-nurse' would be sufficient, in our thinking, to condemn her. A nurse should be a 'lady' by nature, and not necessarily by birth, but we have been fortunate enough to meet with

excellent workers in whom we could implicitly rely, both among those whose birth has been 'gentle' as well as with those who, to use Dr. Anderson's expression, have had no knowledge of their grandfathers.¹

Midwives' certificates.—The Executive Committee of the General Medical Council, in answer to a question from the Council of the Obstetrical Society, state that they consider 'that the words in the Diploma—"a skilled midwife competent to attend natural labour"—are open to legal objection, seeing that under the Medical Act, 1886, midwifery is one of the three branches in which a regular practitioner must pass an examination in order to obtain a registrable qualification.' The General Medical Council also consider that the general appearance of the document, as also its designation as a 'diploma,' are likely to deceive the more ignorant part of the public, that part which most needs protection, and they request the President and Council of the Obstetrical Society to inform them within one month (from February 25) 'what steps they have taken to bring their certificate within the terms of the resolution of the Council.'

Reviews

The Dyspepsia of Phthisis: its varieties and treatment.

By W. SOLTAU FENWICK, M.D. Lond., M.R.C.P.
Assistant Physician to the Evelina Hospital for Sick Children. (London: H. K. Lewis.) Pages 203, demy 8vo. Price 6s.

As the result of observations made at the Brompton Hospital for Consumption and elsewhere, the author teaches that there are 'at least two varieties of dyspepsia associated with phthisis; one apparently functional and presenting no histological changes in the stomach, while the other is invariably associated with chronic gastric catarrh,' and he believes the dyspepsia and the tubercular disease are dependent on the same constitutional dyspepsia. Dilatation of the stomach exists in nearly every case of *chronic* pulmonary tuberculosis, but is found only about once in every seven cases of *acute* miliary infection. The degree of gastro-ectasis thus bears a direct relation to the extent and chronicity of the pulmonary lesion. Post-mortem digestion of the stomach is encountered with great frequency in cases of chronic phthisis, partly because food is usually given to the very end of life, partly because the vitality of the mucous membrane is at a very low ebb when death occurs. Chronic inflammation of the mucous membrane exists in very many cases of phthisis, and is often co-existent with lardaceous degeneration, punctiform hemorrhages, and ulceration; but tubercular affections of the stomach are rare, the acid

secretion of the organ being inimical to the growth of the bacilli. The gastro-enteritis of phthisis, which is well described by the author, is probably due, in his opinion, to the chronic absorption of certain toxic substances which are manufactured in the pulmonary cavities. He considers the dyspepsia of strumous children to be a form of neurosis, due to irritability of the nervous mechanism of the digestive tract, and showing itself in the form of sudden and painful peristaltic waves. He gives excellent advice as to its treatment, hygienic and medicinal.

The dyspepsia that is apt to precede phthisis is described, and is of two varieties. (1) Atonic, in which the symptoms are chiefly those of weak digestion; (2) irritable, characterised by severe pain and vomiting.

The treatment of this important subject in both its varieties is admirably detailed, and includes general, dietetic, and medicinal measures.

Another chapter deals with the dyspepsia that usually accompanies the first stage of pulmonary phthisis, analyses its symptoms, physiology, progress, and termination, its etiology and treatment, and, under the latter head, gives clear and concise directions suited to the various morbid conditions. The variety of dyspepsia that accompanies the terminal stage of phthisis, and its treatment, comprise another chapter, whilst the last 34 pages of the book are devoted to the subject of perforation of the intestine in cases of this disease. The sudden onset and acute character of the pain, the collapse and subsequent peritonitis, with other clinical records, are described with ample detail. The work throughout shows evidence of careful and well-directed study.

Text-book of Diseases of the Kidney and Urinary Organs.

By Professor Dr. PAUL FÜRBINGER; translated from the German with annotations by W. H. GILBERT, M.D. Vol. I., 8vo., 7s. 6d. (London: H. K. Lewis.)

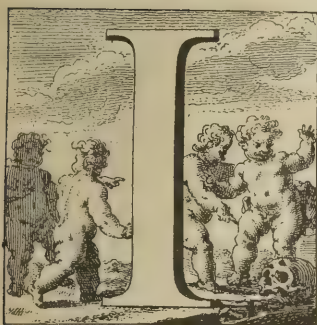
Professor Fürbinger has established a well-earned reputation in Germany for his many and valuable contributions to the literature of renal diseases, and his work on that subject is so well known and highly esteemed in his own country that Dr. Gilbert has rendered good service to the English-speaking race by publishing this translation; it has already been rendered into French by Drs. Caussade and Hartman, so that it is now made legible and intelligible to a larger portion of the medical world. The work before us is devoted to the strictly medical part of the subject, while a subsequent volume will treat of renal surgery. The space at our disposal will not permit us adequately to discuss the merits of a book such as this, bristling as it is with the latest theories and discoveries in renal diseases; suffice it to say that in our opinion it stands alone as a monument of patient industry and unwearying research. The work is so concise and so absolutely free from literary 'padding' that a close study of it is no light undertaking; its value, however, as a book of reference cannot be over-estimated.

¹ *Notes on Medical Nursing*: from the Lectures given to Probationers at the London Hospital. By James Anderson, M.D. F.R.C.P., Assistant Physician to the London Hospital, &c. Edited by Ethel F. Lamport, with an introductory biographical notice by Sir Andrew Clark, Bart., second edit. (London, H. K. Lewis, 1895)

CLINICAL SKETCHES

MAY 1895

The Suprarenal Bodies and their Diseases



IN the recent Goulstonian Lectures before the Royal College of Physicians of London, Dr. H. D. Rolleston gave an elaborate description of the anatomy, histology, morbid anatomy, and physiology of the suprarenal capsules.

He described in his second lecture the conditions of the suprarenal capsules in Addison's disease, and summarises them as follows:—

- '1. The fibro-caseous lesion due to tuberculosis—far the commonest condition found.
- '2. Simple atrophy.
- '3. Chronic interstitial inflammation leading to atrophy.
- '4. Malignant disease invading the capsules, including Addison's case of a malignant nodule compressing the suprarenal vein.
- '5. Blood extravasated into the suprarenal bodies.
- '6. No lesion of the suprarenal bodies themselves, but pressure or inflammation involving the semilunar ganglia.

'The first is the only common cause of Addison's disease. The others with the exception of simple atrophy may be considered as very rare.'

In reference to these points we are led back to the first lecture, where Dr. Rolleston remarked:—

'In 1,050 post-mortems in which I have examined the condition of the suprarenal bodies, there were 131 cases in which death was directly or chiefly due to

tuberculous disease, and in 18 of these cases there was caseation in the suprarenal capsules, without there being any evidence of Addison's disease. In 11 instances the caseation was unilateral, and in 7 bilateral.

'In the decennial periods it is noteworthy that in the 23 cases in which death occurred under ten years of age, no tubercle was found in the suprarenal bodies, while out of 17 cases in the period between ten and twenty years of age caseation occurred twice on both sides and three times unilaterally.

'There appears, therefore, to be immunity from tuberculous inflammation in the first few years of life in the case of the suprarenal bodies.'

The lecturer next dealt with the *anatomical distribution of cutaneous pigment in Addison's disease*.

Lecture III. commences with the **nervous theory of Addison's disease**.—The view that the connection between disease of the suprarenal bodies and Addison's disease depended upon extension of morbid changes from these bodies to the neighbouring semilunar ganglia, solar plexus, and sympathetic nerves, would always be associated with the name of Samuel Wilks. It was based upon post-mortem investigations showing the spread of inflammation from the tuberculous suprarenal bodies to the neighbouring sympathetic nerves and ganglia.

According to this view, the lesion is primarily in the suprarenal bodies, and always of the same nature, while the symptoms of the disease are due to the secondary effect on the adjacent sympathetic.

A modification of these views is that the disease is 'due to changes in the abdominal ganglia and sympa-

thetic, which may be due to disease of the suprarenal bodies, but is quite independent of a special, or indeed of any, lesion in them.'

The nervous theory not satisfactory.—The nervous theory does not explain the numerous cases in which the semilunar ganglia and adjacent sympathetic have been found normal, nor when Addison's disease is found associated with simple atrophy of the adrenal bodies, and for other reasons this theory is untenable.

Theory of suprarenal inadequacy.—'This theory assumes that the suprarenal bodies are active glands, and that interference with their functions gives rise to Addison's disease.'

This may be called the *chemical theory* of Addison's disease.

The facts of morbid anatomy were shown by the lecturer to be compatible with this theory.

Is Addison's disease likely to be a **chronic toxæmia**? This disease and myxœdema are in many ways analogous. The destruction of the thyroid gland, or its experimental removal, leads to a train of symptoms—myxœdema—which can be satisfactorily obviated by artificially supplying the body with the extract of the thyroid. The same is probably true of the suprarenal bodies.

'From analogy and from the toxic condition of the blood in animals deprived of their suprarenal bodies, it would seem probable that Addison's disease is a toxic condition, but the absence of special toxic bodies from the urine is strongly against this view. Further experiments are required, and for the present the question as to whether Addison's disease is or is not a toxic condition should be left open.'

As regards the theory that the *suprarenal bodies remove pigment and toxic substances from the blood*, Dr. Rolleston considered that the evidence did not support such a view.

The author's opinion was that the facts proved that Addison's disease is due to an inadequate supply of suprarenal secretion; but whether the deficiency in this internal secretion leads to a toxic condition of the blood, or to a general atony and apathy, is a question which must remain open.

Treatment.—'In conclusion, a few words about the treatment of Addison's disease by suprarenal extract will not be out of place, since such a course of treatment is the logical outcome of a belief in the view that Addison's disease is due to an absence of the internal secretion of the suprarenal bodies. But few

observations have been published. Dr. G. Oliver treated two cases for three months with suprarenal extract by the mouth; they improved, in that they gained weight, became less pigmented, and were freed from nausea and anorexia.

'I have had a woman with Addison's disease under treatment at St. George's Hospital since June 1894. She is stronger and less subject to nausea and vomiting since taking suprarenal extract by the mouth; and, though still pigmented, is on the whole decidedly better. The quantity of the extract that should be given is a point which it is important to ascertain, otherwise disappointment may result because inadequate doses are employed; a dose equal to 45 grains of the original gland spread over the twenty-four hours is certainly not too much. Since each suprarenal capsule of a man weighs about 1 drachm, and since the medulla is the only part containing the active principle, this dose is nearly equal to two suprarenal bodies a day.

'Sir D. Duckworth, in an article in the "Encyclopædia of Medicine" (New York)—the proofs of which he has most kindly allowed me to see—quotes a case of Sir T. Grainger Stewart's, in which feeding with the suprarenal bodies produced no good effect.'

Dr. Rolleston then referred to the experiments of Dr. G. Oliver and Professor Schäfer which suggested the use of the extract as a hæmostatic agent.

He considered the remedy was on its trial, and, like thyroid extract, might be found useful in other diseases.

Suprarenal extract for other diseases.—Since the action of suprarenal extract on the vascular system is the reverse of that of thyroid extract, Dr. G. Oliver has suggested its use in exophthalmic goitre. Inasmuch as the extract has such a great power of constricting the vessels, Dr. G. Oliver thinks it may be useful as a hæmostatic in purpura, hæmophilia, &c., and in the various conditions of vasomotor relaxation and paresis, such as occur at the menopause, in 'cyclic' albuminuria, and in diabetes. Possibly it might be useful in cases of shock and collapse. Dr. Douglas Stanley has found that it increases the number of red blood corpuscles in pernicious anæmia. Oliver and Schäfer have found that suprarenal extract is not damaged by artificial gastric digestion, so that giving the drug by the mouth is physiologically correct.

(See page 148 for a case of Addison's disease.)

NOTES BY EDITOR.

In the April number we referred to an important paper read by Dr. Patrick Manson upon the study of Malaria and other tropical diseases in this country, and it is very satisfactory to find that one of our general hospitals has already taken practical action in this matter. The authorities of St. George's Hospital have created a 'chair,' in which they have placed Dr. Manson, for the purpose of giving effect to the recommendation which he so eloquently urged in his paper read before the Hunterian Society.

It will readily be conceded that no better man could have been selected. The narrow-mindedness which opposes specialism is gradually dying out in this country, and the appointment of Dr. Manson is another sign of recognition of the value to be obtained by special experience in a particular class of cases.

Dr. Manson is well known for his scientific investigations upon the *filaria sanguinis hominis*, as well as various parasitic diseases peculiar to India. He has also published valuable papers on leprosy, sprue, lymph scrotum, and various other tropical diseases.

His connection with the College of Medicine for the Chinese at Hong Kong and the hospital at Amoy has been greatly to the advantage of the Chinese as well as to his own reputation. I heartily wish him success in his new post.

Dr. J. G. Glover, who is so widely known as a representative man in London general practice, and who has devoted so much time and energy to the work of the General Medical Council, has delivered an address on 'The Medical Profession: its Place and Progress,' before the North London Medical and Chirurgical Society.¹

In this address Dr. Glover states: 'Certainly there seems no reason at present, despite the growth of specialism, to think that the general practitioner will cease to be much needed.'

The past winter's experience seems to prove—if such proof be necessary—that the occupation of the general practitioner was never more assured. It is the specialist who has suffered, having been practically cut off from his patients by the prevalence of influenza,

while the general practitioner has complained of too much work. A well-known ophthalmic surgeon says that half the old cataracts upon whom he had hoped to operate are now beneath the sod.

'One great enemy of the general practitioner,' said Dr. Glover, 'and especially of the young general practitioner, is not so much the specialist as the generalist—that arch-generalist, the prescribing chemist—with his ready platitudes of diagnosis, and his equally ready remedies for every complaint,' and he goes on to urge that the student should study more to deal with 'common ailments,' to 'keep in touch with the common diseases of the common people,' 'and not,' he infers, to ignore a symptom because it does not denote a hospital disease or come within the scope of the nomenclature.

Surely these are words of wisdom, and surely at the present day, when medical education lacks the teaching of the old apprenticeship, the medical student should try to gain an insight into the routine of ordinary practice, before trying to oust the prescribing chemist.

Although he urges the importance of attention to the lesser ills of human nature, Dr. Glover adds that 'no man recognises more cheerfully than I do the increasing earnestness and authority of consultants and their value in the economy of things. The most experienced general practitioner best knows the comfort and the satisfaction of calling to his aid men, whether young or old, whose studies, or genius, or experience, or practice in the various parts of our vast empire, have added to our knowledge of disease, or whose skill in the treatment of difficult cases has been recognised alike by the public and the profession.'

Dr. Glover next referred to the financial aspects of our calling, which had been touched upon by Mr. Gladstone in a speech made at Guy's Hospital in 1890. Mr. Gladstone spoke of the great professional fortunes that were accruing to medicine, and Dr. Glover very pertinently says that such great medical fortunes might be counted on one's fingers or even one's thumbs, and have not kept pace with the growth of national wealth.

I have not the speech before me, but I well remember that Mr. Gladstone seemed to infer in his

¹ Delivered April 11, 1895.

remarks that the majority of medical men made remarkably good incomes. It seemed natural to suppose that the speaker had obtained his information from the results of revenue, and if so the question arises whether medical men are not very unfairly handicapped in this matter.

In paying income-tax, I believe that, as a rule, medical men do not deduct enough for their professional expenses, and even when they have taken off as much as the income-tax collector would allow, are still paying more in proportion than would be done in any business.

In medical practice the expenses belonging to it are so mixed up with those of private life that the medical man finds it very difficult to differentiate the one from the other, whereas in a business everything is kept separate.

The want of business-like management of our affairs which is so common in the medical profession, is doubtless due to early training. We are told in our student days that we must think nothing of money, but must labour and strive for honour and glory. This theory is all very well in its grandeur, but the majority of us have to face the fact that we have to make a living by our profession, and some of us are so callous as to hold the opinion (formed from experience at a latter period of life) that there is no disgrace in conducting our profession in a business-like manner so long as we do so honestly. I would go further and say that the teaching above referred to is apt to defeat its object, and that the inculcation of business methods among students would rather tend to make them better doctors and more useful to their fellow creatures, as well as more mindful of their own interests in after life.

More business-like training would lead to a more systematic arrangement of work, a less number of bad debts and thus a better opportunity to afford liberality or charity in deserving quarters. Another result of such training ought to be better arrangements for recreation, for there cannot be a doubt that the doctor whose whole time is given up to professional work cannot but become more or less narrow-minded.

Recreation is not incompatible with extensive practice; in fact, it is probable that a man will get through more work with a fair amount of recreation than he would without. I am not referring to an autumn or other holiday, but to more frequent change of thought.

Yet it is quite compatible with hard work to devote some time to other matters, as, for instance, literature.

The stories in the 'Strand Magazine' entitled 'Stories from the Diary of a Doctor' are written by a hard-working general practitioner, and although he is dealing with medical subjects he finds the occupation a considerable relaxation to his work.

I continue to receive encouragement in maintaining the line I have mapped out for the conduct of this journal, but I have found that there is a demand for a Department of Public Health. I have therefore arranged with a well-known Medical Officer of Health to edit a section upon this subject, the first article of which appears in this number.

In one of the weekly medical journals I recently noticed a statement that Lord Iveagh had given 1,000*l.* to a London hospital, this being a further instance of Lord Iveagh's great liberality, he having previously devoted 200,000*l.* to the building of improved dwellings for the London poor.

In the very same journal appears an advertisement issued by the hospital above referred to, inviting applications for an assistant surgeon who will not be eligible unless he possess the F.R.C.S. England, thereby excluding those who only possess the Fellowship of the Irish College.

I understand that these facts are about to be laid before Lord Iveagh, who, as an Irishman, can hardly be expected to continue to support institutions which do not admit Fellows of the Irish College *as suitable for competition* for the staffs of London hospitals.

We have ample evidence of the thoroughness of the Irish examination for their F.R.C.S.; in fact, some are so bold as to assert that it is a more practical test than the English. However this may be, it seems hardly possible that this spirit of exclusiveness can be maintained much longer, and at least cannot be maintained with anything like a spirit of fairness.

Hypnotism is a subject which most of us are rather weary of, but I hope my readers will not pass over Dr. Boulting's paper. It gives, I think, a more practical view of the matter than do many more elaborate attempts at dealing with this subject. Dr.

Boulting's statement that, *by hypnotism, patients can be taught to strengthen and obey their own suggestions in the waking state* seems to offer a more valuable therapeutic use for the process than any description which I have hitherto heard described.

The British Medical Association once appointed a committee to inquire into the subject of hypnotism, but their report was devoid of any practical suggestion, and if Dr. Boulting's assertion is correct it should, I think, receive further attention.

As regards public exhibitions there can hardly be two opinions among medical men. I was once accidentally brought into contact with a show given by a public exhibitor in a private house, and the performance was so utterly disgusting that I left the room before its conclusion. The performer, who was very widely advertised at the time, seemed to have complete control over some half-dozen wretched specimens of humanity, and, among other acts, passed a large needle with dirty thread through the cheeks and tongues of his victims.

One cannot contemplate the possible results of repeated operations of this kind upon the same individuals every day, without dreading the danger from septicism, independent of the moral degradation of the poor creatures who thus prostituted themselves for a certain remuneration.

Mr. Asquith has promised the House of Commons, in his reply to Sir D. Macfarlane, that he would give attention to the matter of the public exhibitions now going on at the Aquarium, and if he learns the facts as I know them, he can hardly avoid taking some definite action to put a stop to the performance.

Original Papers

A RARE MALFORMATION

By J. BLAND SUTTON, F.R.C.S.

Assistant Surgeon to Middlesex Hospital.

SOME months ago Mr. Stephen Paget was good enough to place in my hands a valuable photograph (which I have had reproduced as a woodcut, see p. 134) accompanied by an explanatory letter sent by Mr.

William Budd, of Bristol, July 20, 1856, to Mr. James Paget, London.

Sir James Paget was good enough to allow me to make use of this wonderful case, and the following account is taken from Mr. William Budd's interesting letter:—

‘I inclose a photograph, which I took some days ago, of a little prodigy that is exciting some interest here—a living child with two heads.

‘The supernumerary head is, as you will see, more or less rudimentary. It is furnished, however, with mouth, nose, eyes, and, I believe, ears, and has a brain proper of its own. The eyelids are abortive, and, as there is no orbital cavity, the eyes stand in the form of naked globes on the forehead.

‘When this little creature was first born, the cornea in both was transparent and had its natural polish, but it has long since become diseased and opaque from exposure. The whole organ is, in fact, much diseased now, and, I think, will soon perish. I have not been able to ascertain clearly whether the nostrils have any connection with the air passages. The nurse avers that once, when the child was sucking, some milk regurgitated through the supernumerary mouth, but I do not feel at all sure of the fact.

‘The brain belonging to the second head is imperfectly developed, and, there being no roof to the skull, is visible from without. When the child was born it was covered by a very delicate semitransparent membrane, through which you could see what appeared to be indications of convolutions. This membrane has, however, begun to suffer from exposure. It is now quite opaque, much ulcerated, and I should think the brain itself will soon slough. On the right side of the head there is a rudimentary external ear; on the left side of it the pinna of the supernumerary head is in a state of fusion with that of the natural head; so that it is difficult to make out what belongs to one and what belongs to the other.

‘The head, as you will see, enlarges from the temporal region of the natural head on which it is, if I may use such a phrase, “sessile.” With the exception of this extraordinary excrescence, the child presents no deviation from the normal type, but is as comely a little thing as you would wish to see. The great physiological interest of the fact lies in this—that every movement and every act of the natural face is simultaneously repeated in the second face in the most perfectly consensual manner. When the natural face sucks the second mouth sucks; when the

natural face cries the second face cries; when the natural mouth yawns the second mouth yawns; when the natural face sneezes the second face is contorted in the manner of a sneeze. I thought at one time that the eyes of the two heads also moved in unison, but



A CHILD WITH A SUPERNUMERARY HEAD

I am not sure of this now. The point is not so easy to determine as might appear at first sight. The same remark applies to the question as to whether any of these actions originate in the second face. As a rule they clearly, and for obvious reasons, originate in the natural head. Once, however, I feel sure of having excited an act of suction in the second mouth by inserting my finger into it, and this act, like every act of the kind, was simultaneously repeated in the natural mouth.'

I have ventured to publish this case because, so far as my knowledge of teratology extends, no similar case in the human subject is known, either as a museum specimen or described in literature on the authority of such an admirable observer as Mr. William Budd. The fact 'that every movement and every act of the natural face is simultaneously repeated in the second face in the most perfectly consensual manner' is quite in accord with what has been observed in calves the subject of 'partial anterior dichotomy.'

I have looked through the current periodical literature of the date of this letter with the hope of discovering the fate of the child, but the search was fruitless.

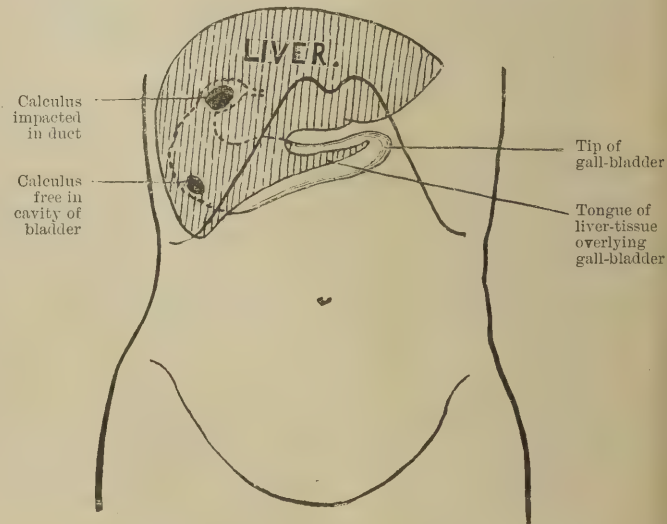
UNUSUAL SHAPE AND POSITION OF TUMOUR CAUSED BY DILATED GALL-BLADDER

By J. GREIG SMITH, M.A., M.B.

Surgeon to the Bristol Royal Infirmary; Professor of Surgery, University College, Bristol.

Herewith is a sketch of the state of parts in a case of cholelithiasis with distension of the gall-bladder, on which I have operated to-day (March 21, 1895). The interest of the case lies in the extraordinary shape assumed by the dilated viscus, and in the presence of a long tongue or lobe of liver-tissue overlying the free portion of the bladder tumour.

The patient, a married lady of thirty-two, with two children, was under the care of Dr. Leonard Lees, of Bristol. He discovered a tumour in the epigastrium when examining her for some vague symptoms of dyspepsia, of which she complained while suckling her second child. He described the tumour to me as being hard, long, and narrow, lying right across the epigastrium, and in contact with, if not adherent to, the liver margin; and I found it as described. With a little manipulation it was possible to separate the left extremity of the growth from the liver; it was immovable at its right extremity. When the fingers were removed the tumour at once sprang



back into position. It moved freely with the liver in respiration.

I saw the patient on three occasions, at intervals of a few weeks, and the growth continued to increase in size and to become more fixed. It was very hard, harder than normal liver-tissue, and seemed to be

growing in, or to be covered with, omentum. (At the operation it was found to be wrapped in omentum.) In length it measured at least four inches, crossing the epigastrium from rib to rib-margin; in depth it seemed to be about two inches. It was not very painful on palpation.

A median incision was made between the umbilicus and the xiphoid process, when the actual state of parts was made out. The gall-bladder, enormously distended and very hard and tense—being, however, thin, and seemingly preparing to give way at the tip—was coiled up under the liver, and sent an extension right across the middle line, on the outer aspect of which lay a narrow tongue of liver-tissue about three inches in length. About a pint of thick, milky, semi-purulent fluid was removed by aspirator, and by siphon action with a large tube, as it was too thick to flow through the aspirator-needle; and an unmeasured quantity was gathered in sponges. At the bottom of a large pouch a calculus as large as a hazel-nut was felt and removed. A second calculus, as large as the first, was felt by the fingers free in the abdominal cavity apparently impacted in the cystic duct. This was liberated by a process of invagination—turning the duct inside out within the bladder; and so loose were the bladder walls that, by a little traction, this was done within sight. The middle of the dilated sac was bent away from the liver towards the posterior parietes in a way that cannot be shown in the diagram. It was fixed at fundus and neck, but seemed movable in the body.

The dragging out of a tongue of liver-tissue by a gall-bladder is not very uncommon; I have seen it in two other cases. It was first commented on by, I think, Reichel; and Osler calls attention to it in his 'Lectures on the Diagnosis of Abdominal Tumours.' The shape assumed by the distended viscus, I would suggest, might be explained by two circumstances. Firstly, that that there was an unusual firmness of fixation by bladder to liver at the fundus; and secondly, that the increase in size took place during pregnancy, which would push the fundus upwards. The ends being fixed, increase in growth caused bending; the chance of pregnancy turned the fundus upwards; and further increase might accentuate the bending.

NOTES ON HYPNOTISM

By WILLIAM BOULTING, L.R.C.P. LOND.

A scientific explanation of the exact nature of hypnotism and a practical deduction of its effects

and therapeutic value not having yet been given, or, at least, none such explanation having been generally accepted by the medical profession, it seems to me open to any of us who have paid some attention to the subject to record our experience.

For some time past I have been greatly interested in the subject, have practised it upon others, have subjected myself to its influence, and have tried to form an idea upon the points mentioned above.

I will now proceed to give the result of my experience, leaving it for others to decide as to its value.

The method of hypnotising that I have adopted and have seen applied is almost exclusively that of suggestion. The patient is, if possible, first allowed to see another patient hypnotised. He is then asked to let his mind relapse into as blank a condition as possible, and to think of some pleasant or sleepy subject. Suggestions of rest are then made to him gently and perseveringly. After a single sitting, or it may be a great number of sittings, the placid face, the motionless figure, and sometimes the upturned eyes indicate that he is in the trance condition, and the required therapeutic suggestions are made. I have had the pleasure of seeing Dr. Tuckey operate once, and Dr. Milne Bramwell very many times, and I have myself operated on fourteen cases, chiefly for migraine or sleeplessness. With some I have failed, with others I have succeeded more or less. I will describe one case.

A teacher suffering from sleeplessness. This lady is extremely able and level-headed, a classical scholar and a linguist. She was very anxious to be hypnotised, and went pretty deeply under in thirty seconds, but she did not obey the general direction to sleep. By the advice of Dr. Bramwell I made the suggestion specific, 'At your usual hour of going to bed you shall feel overwhelmed with a desire to sleep.' This was successful.

I have selected this case from twelve which I have dealt with personally, and besides these I have sent other patients straightway to a specialist, for in this, as in other departments of the healing art, special dexterity and experience give the more successful results.

What is the nature of hypnotism? So far as my experience and knowledge extend, I have endeavoured to see how far its phenomena can be relegated to known psychical facts. All *idea* has a natural tendency to convert itself into *fact*. Thus an idea in an infant's mind tends at once to excite the action appropriate to its realisation. Although ideation is

in a great measure divorced from conation in the developed intelligence, until in a powerful intelligence like Shakespeare's Hamlet 'thinking too precisely on the event loses the name of action,' yet the general tendency is maintained, and though the action be arrested the persistence of the tendency may be observed in gesture and expression. An idea that is received and dwelt on by the mind becomes intensified, and is the readier to explode into deed. If the idea is objectified, or if it is presented together with some objective correspondence, this tendency is still further reinforced. An example may show what I mean. Suggest the idea of a dinner, and a healthy man is apt to have a passing desire for it. If it is near the hour he is apt to retain the idea and become really hungry. If he passes a cook's shop he may turn in. Now, in all that I have seen of hypnotism, an idea is readily entertained by the patient, is probably already striving to pass into fact, and the hypnotist acts the part of the cook's shop. He is catalytic, as it were, and precipitates the idea of the hypnotic sleep into fact. He is an objective reinforcement of his own suggestion.

I have often tried the experiment of telling my friends to do some simple ridiculous action. In nine cases out of ten they do it unreflectingly and at once. Most people tend to obey each other. All that I have seen of hypnotism would appear to be an application of this universal tendency to obedience coupled with the tendency of a retained idea to pass into fact, especially if supported by some sense-presentation. I have, moreover, seen a person who has never been hypnotised (the able daughter of a professor in science at one of our Universities) under my own test conditions, and before I knew anything of hypnotism, throw herself into a condition indistinguishable from the hypnotic state. 'Making one's mind a blank' is an approach to this condition. It is a feat natural to many, but easier to some than to others. The hypnotised subject makes his mind blank by the aid of the hypnotiser.

But why does a suggestion made in this condition operate? I believe the centres concerned in it become less interfered with and inhibited by the countless stimuli of ordinary consciousness and so are more receptive to suggested idea. More I cannot say, but it is paralleled by a fact communicated to me by a lady of great intelligence, but who disliked hypnotism, that she could always get her refractory little girl to obey instructions given and repeated when the child

was betwixt the sleeping and waking condition. I got a patient of mine to repeat this experiment to her own little girl, aged 12, who had been somnolent from infancy. She rarely slept less than nineteen hours out of the twenty-four. The longer the sleep lasted the more irritable she became. If roused the irritability was still further increased. In all other respects she was a healthy normal child. After one week's suggestion made by the mother while the child was going to sleep, she rose with the other children, and irritability and sleepiness during the daytime disappeared. Much to the satisfaction of the family, the improvement has been kept up for three months, though the treatment was continued for three weeks only. It is suggestive to note in connection with this fact that hypnotised subjects will, if left to themselves, readily pass into profound natural sleep. This fact of the near approach of the hypnotic trance to natural sleep I have witnessed repeatedly, and I think it possible that hypnotism induced by suggestion may be an arrestment on the verge of natural sleep. Moreover, the dominance of the operator has a parallel. The patient passes into the condition with the operator looming big in his mind, and, while deaf to all else, responds to him. But so does the mother, however weary and dead-asleep, respond to the movements of the little infant, who also occupies the focus of her consciousness.

Is there danger? Is there not danger in all medicaments, and the more potent they are the more dangerous. But usually it is no facile matter to hypnotise a patient, nor do I think it can be done without his consent. It is no more easy to hypnotise an unwilling patient than it is to chloroform a patient by the 'one wave of the handkerchief' of the 'shilling shocker.' Moreover, since one acceptable idea implanted will take root and grow as well as another, it is easy to protect the patient by suggesting that he shall never be hypnotised against his will. An operator is powerless with an hypnotically educated patient who resists, but when willing the patient may pass into anæsthetic sleep at the mere production of a written order.

Is there likely to be any danger to the mental well-being of the patient? I have seen persons highly educated in hypnotism doing their daily skilled mental labour involving much energy, judgment, and reflection, in the possession of improved health. All people hypnotised by suggestion express themselves as refreshed by it. 'It makes you feel,' said one lady, 'like what one felt in youth, after a good night's rest

and a tub.' Improperly used, I have no doubt it can degrade the mind. If people are taught to believe in something occult, and in the will of the operator being the effective agent, I can well believe the results to be disastrous. Properly used I believe it is a potent instrument to the reinforcement of the will. Patients can be taught in the hypnotic state to strengthen and obey their own suggestions in the waking state. This development of the will is a fact which has been well attested to me.

As to its scope, I suppose it is capable of application to all who are hypnotisable, and in them to those conditions that can be affected by mental energy. But who shall prescribe the limits of the action of mind and body?

Unfortunately the most readily hypnotisable are not the hysteric, but the student and people capable of strong and undivided attention. Young people are more susceptible than the aged. The results of hypnotism tend to wear out in time, but are always easily renewable. The effects of suggestion do not appear to depend wholly on the depth of hypnosis attained. I have submitted myself to treatment some fifty times for migraine. I have too irregular and rapid a flux of ideas to be a good subject, and never became more than lethargic. My migraine is better, but that may be due to the advancing years.

This paper is offered as an expression of individual experience and opinion upon a subject which probably has yet to be dealt with scientifically, and not as an attempt to lay down any special doctrine.

Public Health

An 'insanitary' area.—The local governing body of Southampton have, on the representation of their medical officer of health, Mr. A. Wellesley Harris, adopted a scheme for the demolition of 128 houses. These houses are at present arranged in narrow streets, from which narrow branch-passages pass to blind courts. They are without proper light and deficient in ventilation. We reproduce on the next page a photograph from Mr. Harris's report, showing a part of the condemned area, viz. one of the narrow, winding lanes—'Blue Anchor Lane.' It is a most picturesque slum, containing houses of the Norman period, and for the most part built of wood; the lane being about six feet wide. In the houses it is not practicable to read without artificial light.

The whole area abounds with old wooden struc-

tures, occupied as tenements, as low lodging-houses, some of which are full of prostitutes. The district is described as a haunt of vice, filth, and immorality. The Corporation are now considering in what way they can provide for the displaced population, and they have instructed their health committee to visit the best types of model lodging and artisans' dwellings, and to prepare a report upon the subject.

Disinfection of the hands.—After trying, upon hands purposely contaminated with septic matters, a number of disinfectants, such as phenol, cresol, corrosive sublimate, and others, and also thorough washing and scrubbing of the hands without thoroughly purifying them—the test of purity being that no growth is obtained from scrapings under the nail—Reinicke¹ finds that the best negative bacteriological result is obtained by simply washing the hands for five minutes in alcohol and then getting rid of the alcohol with recently boiled water. The explanation may be that the alcohol loosens the minute fatty deposits in the skin, in which, presumably, the septic bacteria are entangled.

We have found oil of turpentine a very effectual disinfectant for the hands.

Lead-poisoning from the use of flour ground in a mill, the stones of which were contaminated with sugar of lead.²—In this country by far the greater proportion of our flour is derived from mills provided with steel rollers. Near Giessen, in 1893, in a small village, a number of persons showed symptoms of lead-poisoning. This was satisfactorily traced to the bread they ate, some of which was found to contain 0.068 per cent. of lead. The upper stone of the mill, on examination, contained numerous cavities, which had been filled with a mixture of gypsum and sugar of lead. Some of the cavities appear to have contained almost pure sugar of lead.

The disinfective power of guaiacol.—Guaiacol is, chemically speaking, the mono-methyl-ether of pyrocatechin. Kuprianow³ has made some most careful investigations as to its disinfecting power. The experiments were made upon the staphylococcus aureus, Eberth's bacillus, the cholera vibrio and favus, and in each case these different organisms were also treated in precisely the same manner with phenol and with cresol. He appears to have fairly well established

¹ *Centralbl. f. Gynäcol.* 1894, No. 47.

² Pritzkow, *Zeitschr. f. Hyg.* Bd. xvii. p. 164.

³ *Centralbl. f. Bacteriol.* Bd. xv. Nos. 24, 25.

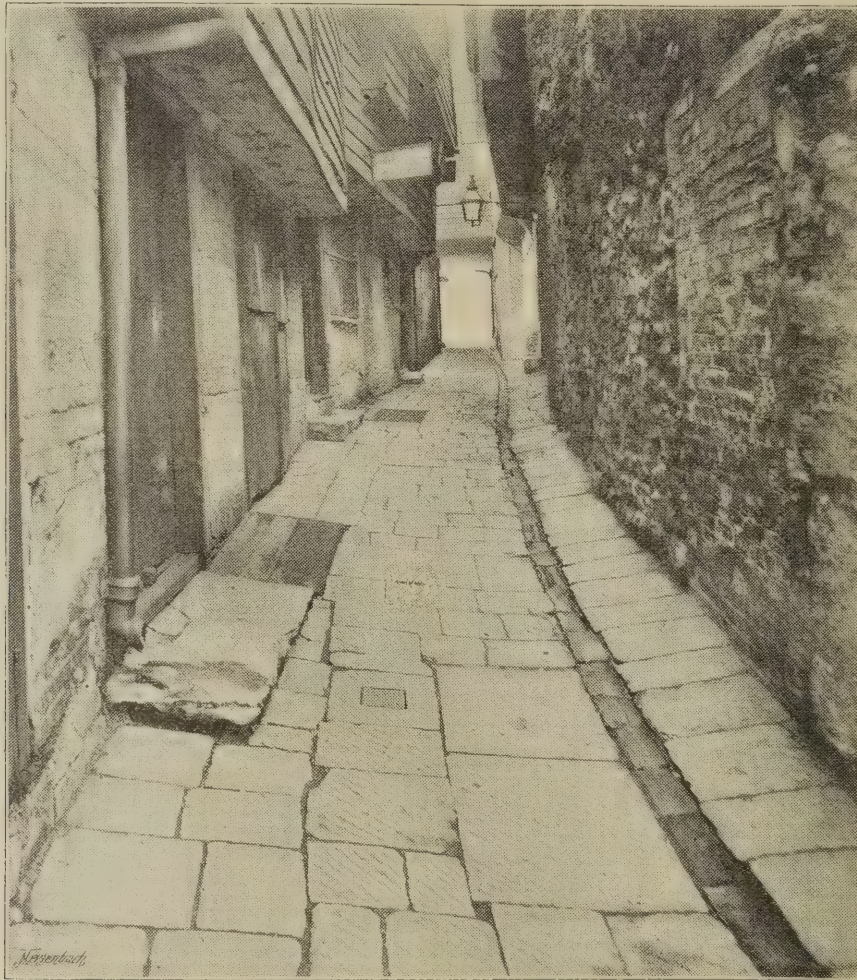
that guaiacol in solutions of the same strength as phenol or cresol has considerable disinfecting properties, being about four times weaker than the disinfectants named.

Antitoxins prepared by electrolysis.—G. A. Smirnow¹ has made some researches as to the possibility of producing changes in the blood serum of animals by

accumulator battery of 110 volts for from three to six hours.

At the angle of the V a stop-cock is fixed, so that the products of each limb at the end of the operation may be separated from each other by turning the stop-cock.

Around the negative pole, and adhering to it, soon collects a coagulum, which later detaches itself. The



BLUE ANCHOR LANE, SOUTHAMPTON

chemical or physical agencies analogous to the action of certain bacteria.

He operated on the serum of the dog and ox.

No results were obtained with various oxidising and reducing agents.

On the other hand, the results of prolonged electrolysis were interesting and important.

The serum was placed in a V-tube of about 200 to 300 c.c. capacity, and submitted to a current from an

¹ *Berl. klin. Wochenschrift*, No. 30, 1894.

fluid in the positive limb becomes strongly acid; the fluid in the negative limb remains alkaline.

Neither acid nor alkaline fluid injected subcutaneously into a rabbit caused a rise of temperature.

However, on neutralising either fluid, a single cubic centimetre caused within two to three hours a rise of temperature, reaching its maximum in five to six hours, the temperature attaining 40.5°C.

As regards ox serum, he found it necessary to free it from globulin, and then he obtained similar results.

Rabbits were infected with diphtheria, anthrax, and rabies, and treated with the electrolysed serum, but the effect of the serum on the subsequent course of the diseases named was negative.

A diphtheria culture in serum freed from bacilli by filtration through porcelain which after a fortnight contained sufficient toxin to kill a guinea-pig by so small a dose as 0.5 c.c. in twenty-five to thirty hours was submitted to electrolysis for six hours, and this fluid had no pathogenic action on guinea-pigs. An albumen solution infected with diphtheria bacilli and then electrolysed showed a curative action if, after rabbits were injected with a diphtheria culture in broth, the electrolysed fluid was immediately afterwards likewise injected. From the ordinary culture of diphtheria in broth Smirnow has also prepared an immunising liquid in the same way. The current is interrupted at the point of maximum clearness; 8 to 10 c.c. of the antitoxin thus prepared, and injected subcutaneously twenty-four hours after the rabbit had received the diphtheria infection, and when the symptoms had already commenced, appeared to cure the animal.

According to Smirnow it will be practicable to prepare other antitoxins—such, for example, as tuberculin—in this way. The research is founded on 100 experiments; it will, however, be noted that the author seems to have used rabbits rather than guinea-pigs, and it is accepted that rabbits are not so sensitive to diphtheria as guinea-pigs.

Ancient cholera vibrios.—Fillipo Pacini long before Koch's researches ascribed cholera to a micro-organism to be found in the intestines and not in the blood. Pacini left some of his material preserved in glass flasks in a solution of 1 part of corrosive sublimate and 2 parts of sodium chloride in 200 parts of distilled water.

Lustig¹ has submitted this material to a careful microscopical examination, and finds that in the appearance of the vibrios and their behaviour to staining reagents they are identical with those of cholera.

Dr. Tatham's report on the health of Manchester.²—Dr. Tatham, in succeeding Dr. Farr, publishes a last essay on the health of Manchester, with which town he was so long identified. The period taken comprises the three years 1891–93.

There is first an excellent summary of the geology of the district, then follows a succinct statement of the statistics, drainage, the relative prevalence of diseases, and the general sanitary state. The whole is illustrated by coloured maps and provided with elaborate tables.

The Corporation have purchased 325 acres of land, and have constructed thereon appliances for the purpose of treating the whole of the sewage of Manchester before allowing it to go into the Ship Canal. Dr. Tatham, however, states that it is 'at the distal and not at the proximal or outfall end that mischief is likely to arise from structural defects in the drains and their connection.' Formerly Manchester was a 'midden' town; it is now a 'water-closet' town, but some of the old leaven in the shape of polluted soil still remains; probably this accounts for the undue prevalence of typhoid, of diarrhœa, and similar maladies which have been shown to have some connection with filth.

Enteric fever, on the average of five years 1888–92, was more than twice as fatal in Manchester as it was in London, and as compared with twelve selected towns the rate of incidence for that disease is much higher. With regard to diarrhœa mortality during the same period, England and Wales had a diarrhœa mortality of 0.53; 33 large towns, 0.73; and the City of Manchester, 0.93. Much of the mortality of Manchester occurs in certain 'black spots.' There are, for example, nine parishes in which the mortality when duly corrected for age and sex distribution ranges from 22.72 in Clayton to 36.92 in Ancoats: thus there is left an ample field for Dr. Tatham's able successor.

The report is something more than a mere local record. It contains a masterly exposition of the deductions which may be drawn from a life table, and discusses generally the practical problems of vital statistics.

Conservancy and water-carriage systems for removal of excreta.—Dr. Boobyer has made an exhaustive inquiry into the efficacy of various conservancy systems in seventy-eight large towns, for the purpose of acquiring information to assist the Corporation of Nottingham to replace the old 'middens' and pails by the introduction of some form of water-carriage system. Dr. Boobyer has published a report upon the results of his inquiries, and these results may be summarised as follows: 'Conservancy systems on a large scale and in populous districts have had their day. Their place must be taken by some form of water-

¹ *Centralbl. f. Bakteriöl.* Bd. xvi.

² *Report on the Health of Greater Manchester, 1891–93*; by John Tatham, M.A., M.D.

carriage. Of all closets the ordinary single water-closet is undoubtedly the best from a sanitary point of view, and it is clearly the only admissible one for the interior of houses; it is scarcely suitable, however, for the poorer class of house property, and when used in the open air, except where carefully protected, is liable to occasional injury from frost, although this liability would appear to be exaggerated in popular estimation. The best patterns of water-closets are the "wash-down" and the "valve." "Automatic slop or waste water-closets" are not liable to injury from frost, are not easily choked, disordered, or damaged by rough usage, are not so readily choked as water-closets, and utilise the domestic waste water for flushing purposes. They are, therefore, mechanically viewed at any rate, eminently suitable for rough and poor neighbourhoods in towns where sewage farms and water supplies have yet to be considered. "Automatic water-latrines or trough closets" have many of the mechanical advantages of the waste-water closets, especially for poor neighbourhoods and public institutions, without their offensiveness. They are, however, liable to occasional disturbance and injury from frost—their troughs and cisterns being in most cases above ground—and they require a special (clean) water-supply. Both the last two varieties of closet continue to find favour in those places where they have been most used and are therefore best known. It is, however, absolutely essential to the satisfactory working of both (and of ordinary water-closets also, where these are used for poor neighbourhoods) that a staff of men should be kept by the sanitary authority to look after them.'

Epitomised Lectures and Papers

ON THE LOCALISATION OF GALLSTONES AND THE SEVERAL OPERATIONS FOR THEIR REMOVAL FROM THE BILIARY PASSAGES¹

BY JORDON LLOYD, M.S., F.R.C.S.

Surgeon to the Queen's Hospital; Lecturer on Operative Surgery in the Mason College, Birmingham.

General remarks.—The object of this paper is to discuss where exactly the calculus, or calculi, lie,

¹ The full paper is published in *The Birmingham Medical Review* for April 1895.

whether in the gall bladder, the cystic, hepatic, or common bile ducts, and which operation is best adapted to these varying conditions.

The *general* diagnosis of 'gallstones' is insufficient to indicate the treatment appropriate to any case; just as would be that of 'urinary calculus' without specifying whether the calculus was in the kidney, the ureter, the bladder, or the urethra. We cannot at present diagnose with the same certainty the bile, as the urine stone—chiefly for the reason that we have no subjective method of 'sounding' for the former, such as we may employ in the latter, but a careful investigation of clinical phenomena will, in the majority of cases, enable us to say with tolerable accuracy, not only that gallstones are present, but also in which anatomical region they are probably lying.

Of the causes of cholelithiasis we know but little. These calculi commonly originate within the gall bladder, small masses of mucus being frequently their starting point. Occasionally, however, small concretions are found primarily in the bile ducts. Gallstones are chiefly of two varieties—those consisting mainly of bile pigments and bile salts, and those of cholestearine. The former vary in colour from yellow to black, are opaque, soft, and usually multiple; the latter are more or less transparent, hard, and usually single. They are more common in females than males, and chiefly occur in child-bearing women at the later periods of life. They are predisposed to by tight lacing, and have been met with in women under twenty. When calculi are small, they may be got rid of by passing down the gall ducts into the duodenum; or, when large, may find their way by ulceration through the abdominal parietes, or into any one of the neighbouring viscera. When gallstones do not escape, the consequences may be serious and many—mechanical, inflammatory, or degenerative—for although medicinal and other remedies may palliate and may relieve some of their symptoms, they do not cure the malady. There are no reliable therapeutic means by which they may be dissolved or otherwise got rid of, just as there are no reliable internal solvents for calculi in the urinary tract.

Gallstones often lie harmless in the gall bladder for years; but, as a rule, their presence sooner or later irritates the tender lining of this cavity, and a cholecystitis is set going. This inflammation is sometimes very acute, giving rise to suppuration or empyema of the gall bladder; more often, however, it is

catarrhal, or sub-acute, and the cavity may become slowly distended by its own mucous secretion. Cholecystitis due to gallstone, once started, becomes, as a rule, chronic, and leads to thickening, contraction, and entire loss of distensibility of the walls of this cavity, just as is the case in chronic cystitis of the urinary bladder. The gall bladder becomes puckered and reduced to a mere thick-walled sinus, which is quite incapable of distension even under continued pressure. This practical obliteration of the gall bladder is important always to bear in mind, as it explains the absence of a tumour from many gallstone cases, and constitutes, in addition, a serious difficulty when operation has to be undertaken. Inflammation easily spreads from the gall bladder to the ducts, and puckers and thickens them in the same way; but when the common bile duct contains calculi which obstruct it near its entrance into the duodenum, it may become distended to the size of the small intestine. Inflammation very frequently spreads from the biliary apparatus to the peritoneum and causes adhesions with adjacent structures, such as the transverse colon, omentum, abdominal parietes, duodenum, stomach, or right kidney. Collections of pus may form in any part of the biliary passages, and may extravasate into the greater or lesser sac of the peritoneum, the stomach and intestines, liver or kidney, or externally through the abdominal wall. It has been asserted, and with very good reason, that cancer of the liver is not infrequently a secondary consequence of cholelithiasis. Gallstones may prove fatal from the following causes: exhaustion, cholæmia, collapse during an attack of colic, peritonitis, pyelophlebitis, hepatic abscess, intestinal obstruction, and cancer.

Before discussing the symptoms of cholelithiasis, the author wished to remind the reader of the well-known facts that 'gall-stones' are frequently found *post mortem* in elderly subjects where they have never been suspected during life, although the patients may have been under careful medical observation; and also that large biliary concretions have been passed per rectum without previous symptoms having existed, even although the calculi must have found their way into the intestine by ulceration. Schroeder found gallstones in a series of autopsies at the Strasbourg Hospital to the number of 4.4 per cent. in men and 20.6 per cent. in women. Gallstones do not necessarily, therefore, give rise to symptoms of any kind. Their presence is only manifest when they become 'engaged' in one or other of the different biliary

passages, or when they set up irritation or inflammation in the structures inclosing them.

The disorder is often overlooked. I believe that cholelithiasis is one of the most frequently overlooked disorders, and that scores of its victims go through life and often succumb to their maladies with their disease unrecognised. Gallstone attacks are often mistaken for biliousness, wind, cramp, spasms, congestion of the liver, indigestion, cardialgia, lead colic, renal colic, fæcal impaction, pleurodynia, neuralgia, and when more severe for pleurisy, perihepatitis, peritonitis, appendicitis, intermittent fever, and intestinal obstruction. Recurrent attacks of pain in the belly should suggest to us concrete disorder, and should not be lightly passed over by the use of meaningless terms, like many of those just indicated.

Symptoms.—The general symptoms of gallstones are characterised by paroxysmal irregular *pains* in the abdomen, starting either in the right hypochondriac or epigastric regions, radiating upwards to the shoulder tip or back to the scapula region, often accompanied by *nausea* and *vomiting*, and sometimes even by collapse. Fulness is often complained of, with anorexia, depression of spirits, and flesh loss.

We now no longer regard *jaundice* as an essential symptom (indeed in the large majority of cases it is conspicuously absent); but, when present, much is to be learned from its careful observation. The finding of gallstones in the excreta is positive evidence enough, but their absence teaches us nothing; and similarly, too, with regard to the formation of a *tumour* in the right hypochondrium, its presence gives information of the greatest value, but its absence is of no real clinical significance. *Pyrexia* is met with when inflammatory processes are present, and, when of the intermittent type, is a phenomenon of the greatest consequence in localising the seat of the concretion. *Local tenderness* is a sign of high value, and too much attention cannot be given to its characteristics. *Stabbing pain*, elicited by sharp, deep, heavy percussion over the right hypochondrium, is suggestive of calculus. Many other symptoms might be referred to, but I shall confine my remarks more particularly to the few special phenomena of pain, jaundice, pyrexia, and local swelling, because it is by a careful consideration of these that our localisation is arrived at.

Varieties of conditions.—When the general diagnosis of cholelithiasis has been made, it is necessary, before considering the question of localisation, to remember that gallstones may be met with under six different conditions. These conditions may be divided into

two groups : first, those in which the walls of the gall bladder are yielding, and allow of its distension, as seen in fig. 1 ; and secondly, when the walls are con-

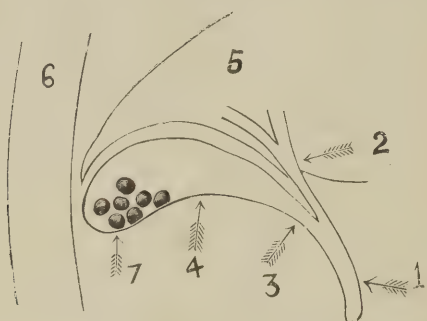


FIG. 1.—MULTIPLE GALLSTONES IN A HEALTHY GALL BLADDER

The figures in all the diagrams indicate as follows : 1, common bile duct ; 2, hepatic duct ; 3, cystic duct ; 4, gall bladder ; 5, liver ; 6, abdominal wall ; 7, gallstones.

tracted, indurated, and indistensible, as seen in fig. 5. A reference to the diagrams will make these several conditions clear.

In the first group are placed No. 1, in which the stone lies in the gall bladder ; No. 2, in the cystic duct ; and No. 3, in the common bile duct. In the second group, in No. 4 the stone lies in the shrunken gall bladder or cystic duct ; in No. 5, in the common bile duct, which, with the hepatic duct, is thickened and dilated, whilst the gall bladder and its duct are shrunken and indurated ; and in No. 6 the shrunken gall bladder is packed with stones, and a calculus also is present in the common duct.

The condition indicated by No. 1 gives rise only to attacks of colic. There is usually no tumour, no jaundice, no pyrexia. If, however, a gallstone passes along the bile ducts into the duodenum, a slight attack of jaundice may follow next day, and the gall bladder may become moderately distended.

No. 2 is characterised by colic and the presence of a tumour formed by the distended gall bladder. There is no jaundice.

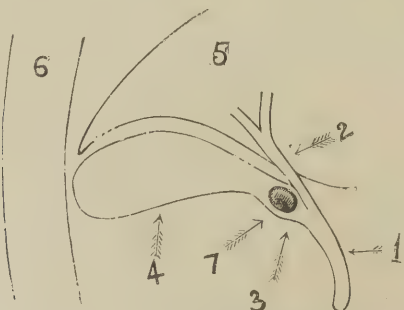


FIG. 2.—CALCULUS IN THE CYSTIC DUCT

No. 3, by the co-existence of colic, tumour, jaundice, and sometimes pyrexia.

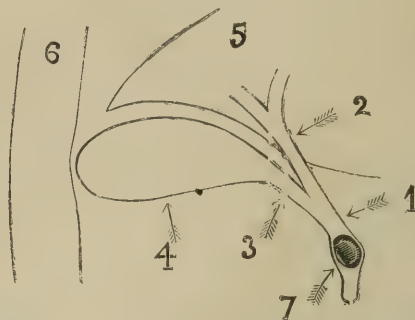


FIG. 3.—CALCULUS IN THE COMMON BILE DUCT

It is well to remember that chronic jaundice, accompanied by a distended gall bladder, is most commonly due to malignant disease of the liver or pancreas, and is not accompanied by the pyrexial phenomena, of which I shall speak more in detail when I come to the consideration of the more common condition as figured in 5 and 6.

No. 4 is the most difficult of all to diagnose. It may be suspected where paroxysms of pain are frequently recurring, and where pyrexia and local tenderness are present. There is no tumour and no jaundice.

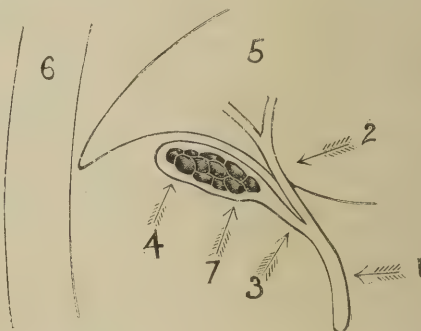


FIG. 4.—MULTIPLE CALCULI IN A CONTRACTED AND THICKENED GALL BLADDER

No. 5 is, to my mind, the most interesting and, in some ways, the most important of the whole group ; and its diagnostic recognition we owe entirely to the observations of Dr. Osler, of Baltimore. Since reading Osler's paper in 1890, I have been enabled accurately to diagnose three cases of 'chronic obstruction of the common bile duct by gallstones,' and have in each case confirmed the diagnosis by operation. Osler's symptoms are three in number, and there can be no mistaking them : (1) paroxysmal hepatic colic ; (2) well-marked ague-like attacks, characterised by chill,

sweating, and fever; (3) chronic jaundice of varying intensity, deepening after each paroxysm, and fading during the intervals.

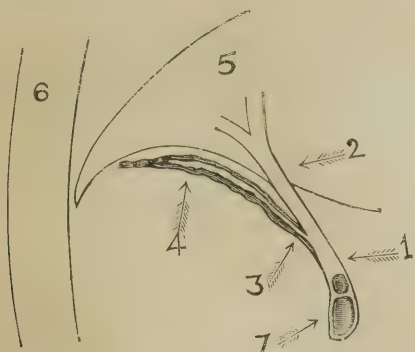


FIG. 5.—TWO CALCULI IN THE COMMON DUCT, WITH THE GALL BLADDER EMPTY, CONTRACTED, AND THICKENED

No. 6 has symptoms similar to No. 5, and can only be recognised at the time of operation.

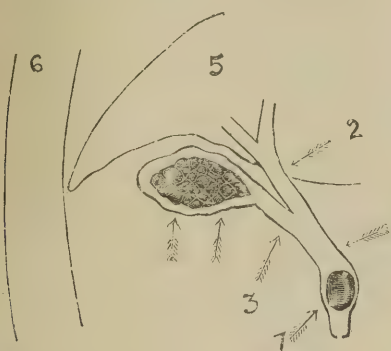


FIG. 6.—MULTIPLE CALCULI IN A CONTRACTED AND THICKENED GALL BLADDER, WITH A CALCULUS IN THE COMMON DUCT

Before leaving the subject of symptoms I should like finally to add that as a rule the pains of hepatic colic shoot upwards and backwards, whereas those of renal colic shoot downwards and forwards; that the characters of a distended gall bladder are a round-ended swelling which appears under the tip of the ninth right costal cartilage and enlarges along a line running obliquely downwards and inwards immediately below the umbilicus. The tumour is 'anchored' above beneath the ribs, and cannot be depressed much by manipulation, although it descends freely on deep inspiration; distension of the colon pushes it upwards and forwards. Tumours of the right kidney, on the other hand, begin in the loin and enlarge horizontally forwards and inwards; they are 'anchored' towards the middle line, and can be moved vertically through a greater distance by manipulation than by respiration, and they are hidden and pushed out of sight by

distension of the colon; and lastly, that chronic jaundice without distension of the gall bladder is more likely to be due to gallstones than to malignant growths.

The several operations applicable to each of these several conditions, and the author's practical conclusions.—For No. 1, when a stone lies free in the gall bladder, cholecystostomy, cholecystotomy, cholecystectomy, and cholecystenterostomy; of these cholecystostomy is, I think, the proper procedure, and it is one of the most simple and satisfactory of surgical operations. The abdomen is opened by a two- or three-inch vertical incision from the costal margin at the outer edge of the rectus muscle, or, when a tumour is to be felt, the incision may be made immediately over it. The gall bladder is exposed, pulled up into the wound, and emptied of its liquid contents by trocar and cannula; the puncture opening is enlarged, the edges of the bladder wound held with forceps, and the stone or stones removed with a scoop. The open gall bladder is then sewn to the fascia covering the rectus, or to the muscle itself, with a continuous silk suture, a drainage tube inserted, and the skin wound brought together with two or three interrupted stitches. This operation is usually spoken of as cholecystotomy, and is that most commonly performed, but, strictly speaking, cholecystostomy is its proper title. Cholecystotomy rather should imply the opening of the gall bladder, and its return into the abdominal cavity with its incision sutured or not according to circumstances. It is performed in a similar manner to cholecystostomy, but its death-rate is higher, and it has no real advantages of any kind. Cholecystectomy—excision of the gall bladder—has been advocated as a preventive of subsequent gallstone formation, and is not difficult to perform. I look upon cholecystectomy as an unnecessary procedure, and its higher mortality should certainly exclude it in the condition we are now considering. Cholecystenterostomy has recently been advocated in this class of case by Murphy, of Chicago, who has invented an ingenious anastomosis button which makes the operation easy and rapid. He justifies his proposal chiefly on the ground that cholecystostomy is liable to result in permanent biliary fistula—a statement entirely opposed to the experience of Tait, Robson, Terrier, and myself. To anastomose a gall bladder, emptied of its calculi and whose ducts are clear, with a duodenum is, in my opinion, an unwarrantably dangerous and unnecessary measure, although it may be so easily and quickly done with a Murphy button.

When a stone is impacted in the cystic duct, as seen in No. 2, and the gall bladder distended in consequence, the incision should be made over the situation of the tumour. The same operations are feasible here as in No. 1; but, in addition, choledolithotomy or choledochotomy may be called for. Of all these operations cholecystostomy is that which should first

be tried, and should be supplemented by another procedure only when it has failed. When the abdomen is opened, a stone in the cystic duct may be felt by slipping the finger beneath the liver along the outer surface of the gall bladder, and may be most easily squeezed back into the gall bladder before that cavity is opened. If this cannot be accomplished, the

Sir Astley Paston Cooper, Bart. F.R.S.

BORN 1768, DIED 1841

ASTLEY COOPER was the fourth son of the Rev. Samuel Cooper, D.D., curate of Great Yarmouth, and rector of Morley and Yelverton, Norfolk.

His uncle, William Cooper, was surgeon to Guy's Hospital, and his grandfather was a well-known surgeon at Norwich. Cooper was apprenticed in 1874 to his uncle, but was transferred to Henry Clive at St. Thomas's, spending one winter at Edinburgh.

At the age of twenty-one he was appointed Demonstrator of Anatomy at St. Thomas's and two years later he became Joint Lecturer with Clive in anatomy and surgery, and married Miss Ann Cock and a fortune.

If he had been somewhat wild in his youth, he seems to have settled well down to work during his hospital days, for upon his marriage, after spending a few months in Paris, he returned to London and devoted himself to study and teaching.

He became a popular lecturer, and was selected in 1793 to lecture on anatomy at the College of Surgeons. In 1800 he was appointed surgeon to Guy's Hospital, and soon attained a high position in the estimation of the public as well as of his profession.

The Royal Society elected him a Fellow, and gave him the Copleian Medal on account of his work on the Membrana Tympani.

In 1805 he helped materially in founding the Royal Medical and Chirurgical Society, becoming its first treasurer.

The year before this he had published his work on Hernia, of which he completed the second volume three years later. He is said to have lost 1,000*l.* over this book, owing to the elaborateness of the illustrations.

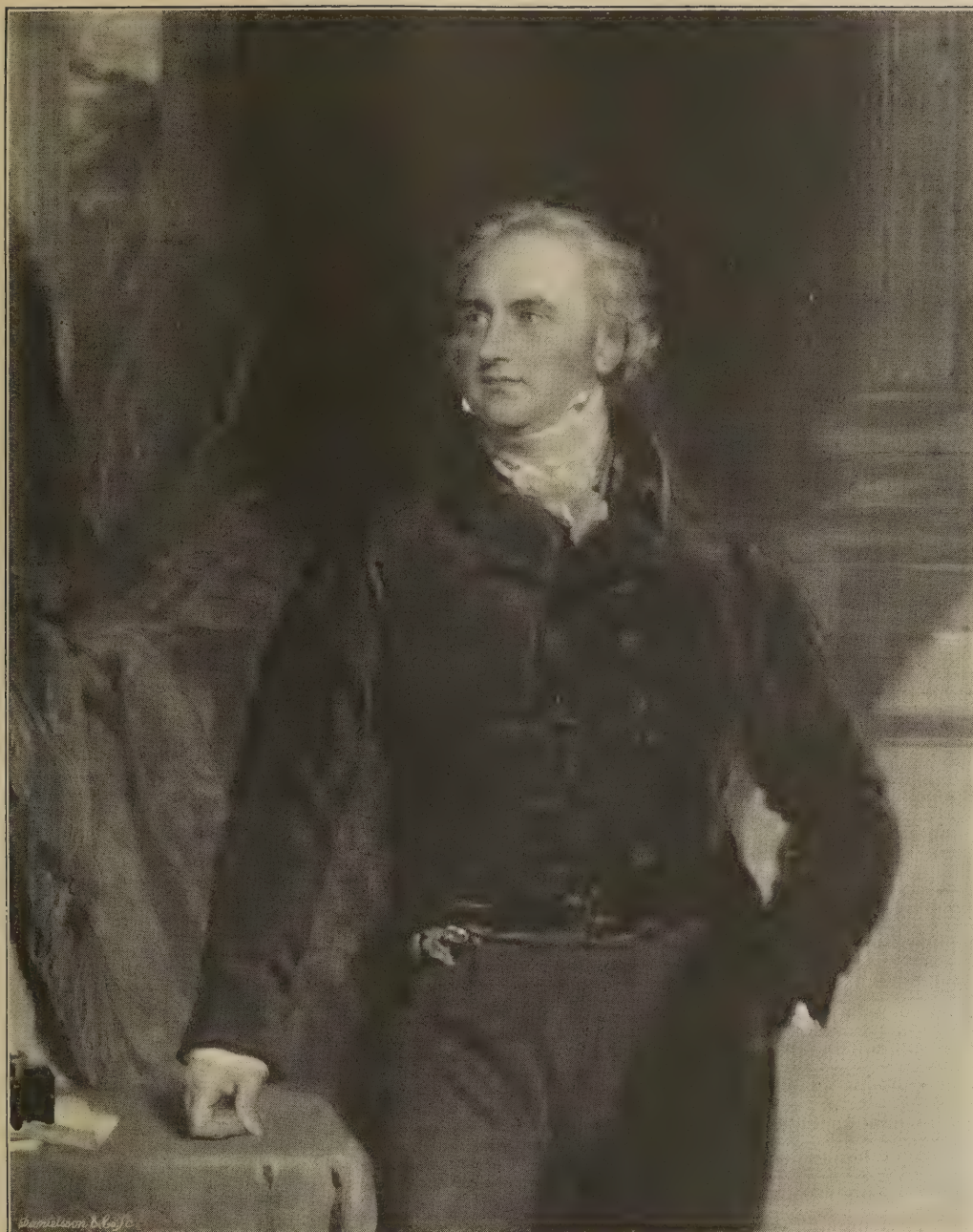
In 1813 Cooper became Lecturer of Comparative Anatomy at the Royal College of Surgeons. In 1816 he performed the celebrated operation of tying the aorta for aneurism.

He received his Baronetcy in 1820, after having

performed a small operation on George IV. In 1882 he became an examiner at the College. It was at this time that he published his great work on Dislocations and Fractures of the Joints, a work which is beautifully illustrated and is very good reading even now. As regards dislocations it is interesting to note that at that time, before the introduction of chloroform, Cooper laid down as a rule that no attempt should be made to reduce dislocation of the hip joint until at least 25 oz. of the blood had been removed by venesection and the patient reduced to the verge of syncope—hot baths, and the administration of tartar emetic being used to add to the depressing effect. In a case of dislocation of the head of the femur into the ischiatic notch, a strong man was bled 16 oz. at 2.30 P.M., 'which produced no sensible effect;' at 3.10 P.M. 'about 27 oz. more were' taken, and while the blood was flowing a grain of tartar emetic was given and repeated till he had taken five grains at intervals of a few minutes, 'and as he was becoming faint he was taken into the theatre.' After this preparation the greater part of an hour was spent in extending the limb with pulleys, after which the dislocation was found to be reduced. The patient 'was carried to bed in a very faint state.'

In studying the histories of surgeons of a bygone age, we are frequently reminded of the horrors of their art before the days of chloroform.

It is not surprising to read that Abernethy 'had a most unsurgeonlike horror' of operations, and that both Cheselden and Hunter entertained similar feelings. Of Sir Astley Cooper's uncle William it is recorded that when about to amputate the leg of a man at the hospital, the patient, seeing the instruments being got ready, suddenly jumped off the table and hobbled away, whereat the surgeon expressed himself as greatly relieved: 'By Gad,' said he, 'I am glad he has gone!'



To the King's Most Excellent Majesty
His Servant
SIR ASTLEY PASTON COOPER BART F R S
 SERJEANT SURGEON TO THE KING, VICE PRESIDENT OF THE ROYAL COLLEGE OF SURGEONS, &c. &c.
is by Permission delivered by His Majesty's most Faithful Subjects, and
respectable Servants, George Fox & Co.
 London Published Jan^r 1830 by Colledge Son & Co Printers near to the Fleet Mall East

Cooper became President of the College of Surgeons in 1827 (at the age of fifty-nine) and the next year he was appointed Surgeon to the King.

Sir Astley spent much of his spare time at his farm at Gadesbridge, near Hemel Hempstead, where he doctored lame horses and played at amateur farming.

His first wife died in 1827, and the following year he married Miss C. Jones.

He died on February 12, 1841, at the age of 73, leaving no family, the Baronetcy passing to his nephew.

In the account of Sir Astley Cooper's life given in the 'Dictionary of National Biography,' from which we

have obtained some of the foregoing information, a full list of the many works which he wrote are given. In the very lengthy history of his life written by his nephew Bransby Cooper are recorded a number of details, not only of this surgeon but of many others. It is rather tedious reading, and the tales therein are, as a rule, hardly worth recording.

The admirable portrait which we produce of Sir Astley has always been recognised as an excellent work of Sir Thomas Lawrence. The print from which our plate was produced was engraved by Samuel Cousins.

gall bladder is incised and emptied of its contents, as already described, and an attempt made to lift the impacted calculus out of its nest with a scoop or forceps working from inside the cavity, aided by fingers working from without. The stone may have to be broken up before it can be dislodged, and this may be done by splitting it with a round sharp-pointed needle, or by crushing it with suitable forceps from within the gall bladder. If these measures fail, the needle may be pushed into the stone through the walls of the duct, or the offending calculus may be crushed by means of rubber-padded forceps applied outside the ducts. Any of these procedures are spoken of as cholelithotripsy; and should all of them fail, we may leave the stone where it is, complete our cholecystostomy in the usual manner, and take steps to remove the obstruction by daily injections of watery or oily solutions, or we may perform cholecystenterostomy instead; the latter operation is certainly more justifiable here than in the first condition described. There is no necessity, however, to leave an impacted stone behind, for choledochotomy—incision through the duct walls—is a practicable and tolerably safe procedure. The cystic duct should be incised in its length over the calculus and towards its right side, and the stone removed with a scoop. The opening in the duct may sometimes be closed with a continuous Lembert suture; but owing to its depth from the surface of the body, the limited space in which to work, and the encroachment of the surrounding structures, this can rarely be satisfactorily accomplished. Fortunately, however, this is a matter of little consequence; but if we cannot suture accurately, we must insert a glass drainage-tube down to the opening in the duct, pack it lightly beneath with iodoform gauze, which is brought out at the lower angle of the external wound, and removed in thirty-

six or forty-eight hours. I have dealt with three cases in this manner with most satisfactory results.

The condition figured under No. 3 is less common than those already dealt with, and its operative treatment is practically identical with that of No. 2; I would add, however, the cholecystostomy is less likely to succeed here because of the distance of the calculus from the outlet of the gall bladder, and that cholelithotripsy and choledochotomy are more difficult because of the depth of the space in which our manipulations have to be carried on. The former of these two latter operations should always be performed if at all possible.

The treatment of No. 4 introduces us to a condition in which the gall bladder is so contracted that it cannot be sutured up to the abdominal parietes, the operation of cholecystostomy is therefore impracticable: cholecystotomy with suture of the opening, although possible, is usually both difficult and dangerous. Cholecystectomy might be available, and in certain circumstances should be tried. Cholelithotripsy, except as supplementary to other operations, need not be considered. Cholecystenterostomy is impracticable by mechanical apparatus such as Senn's bone plates and Murphy's buttons, because of want of space in the gall bladder, and to anastomose with simple sutures in this condition is absolutely impracticable. It is by choledochotomy, therefore, or cholecystotomy without suture, that we can most efficiently and safely deal with this class of case. It is upon free and perfect peritoneal drainage by means of glass tubes and iodoform tampons that we have to rely, and the details of the treatment have already been described when dealing with No. 2. In connection with this and the remaining two varieties it may be desirable also to drain the right lumbar peritoneal

pouch by means of a tube through the abdominal wall in the lumbar region just below the lower end of the right kidney. I have adopted this plan in a recent successful case, and with great advantage.

I come finally to consider the operative treatment of Nos. 5 and 6, to which two only (cholelithotripsy and choledochotomy) of the half-dozen named gallstone operations are at all applicable. I have tried them both and have had good results with each, but on the whole I am inclined to favour the major and more radical procedure of choledochotomy. In making the incision into the duct which runs along the free side of the gastro-hepatic omentum, it is well to remember that in the omentum lies also the hepatic artery, and to the left and behind is the portal vein. The incision, therefore, must be made *upon* the calculus, vertically and to the right. An opening at so great a depth cannot be satisfactorily sutured. It is a waste of labour, in my opinion, to attempt it. Give part of the time which would be frittered away in useless suturing to the cleansing of the peritoneum, the careful arranging of the drainage tube and its circumjacent iodoform packing, and your patient's prospects will be benefited. I have now had many experiences of the tamponing of abdominal wounds with iodoform gauze, and have absolute faith in its drainage efficiency and its harmlessness to the peritoneum. In No. 6 separate incisions would have to be made into the contracted gall bladder and the common duct, and two drainage tubes might possibly be required.

My friend, Mr. Rutherford Morison, of Newcastle-on-Tyne, has recently called attention to the advantages offered by transverse incision through the abdominal parietes, affording, as it does, easier access to the structures beneath the liver, and permitting of efficient tube drainage from the outer angle of the wound. He disapproves of suturing the gall bladder to the abdominal wall, because of its liability to be followed by permanent fistula; but in this matter I think he is wrong. I have adopted the transverse incision several times lately, and can speak well of it.

In ending his very practical and interesting paper, Mr. Jordan Lloyd stated that he had purposely abstained from referring in detail to his own cases from a desire to save the time of his hearers, and had purposely avoided reference to the many complications which may result from gallstone disease.

CONGENITAL ASYMMETRY OF THE TWO HALVES OF THE BODY

No satisfactory explanation has yet been given of these irregularities in development, but the fact that the left side of the body is usually the one which is least developed ought to give a clue to the causation. One of the most frequently noticed deficiencies is smallness of one lower extremity, and this is almost invariably on the left side.



DR. BLACK MILNE'S CASE OF CONGENITAL ASYMMETRY

A very typical case of asymmetry is given in the last number of the 'Quarterly Medical Journal.' It is reported by Dr. J. Black Milne, assistant surgeon to the Hospital for Sick Children at Sheffield, and we are indebted to him and to the proprietors of the Journal for their courtesy in allowing us the use of the illustration given above. It represents a baby, Emma M. B., twelve months old.

Dr. Black Milne refers to the irregular develop-

ment of the face as having been at once noticed, and then it was found that the trunk and limbs were similarly affected.

In the family history there seems to have been nothing very irregular, and no account of any similar deformity among the relatives. The father and mother were not previously related to each other, and this child was their first. During the pregnancy the mother was nervous and hysterical, but not otherwise ill. Three months before the baby was born she got a great fright through her husband threatening her with a knife, but the labour was a natural one. A second child was born sixteen months after the first, but exhibits no asymmetry or other unusual feature.

A very careful account is given by Dr. Black Milne of the measurement of different parts of the body.

Discolouration of the skin.—This peculiarity has been noticed in several cases recorded, and is a marked feature in this instance. The whole of the back and buttocks, both legs, and right arm and right chest were very dark and discoloured when the child was born. It is now less so. The colour is of a dark red, or reddish purple, and is patchy. There are no *nævi* or varices. The discolouration is not confined to one side, but is chiefly on the right or hypertrophied.

Dr. Simeon Snell examined the child's eyes, and found their condition as follows: Left palpebral fissure somewhat narrowed; pupils equal; refraction hypermetropic; with retinoscopy, left 4 D., right 5 to 1 D. higher; vision apparently perfect.

Dr. Black Milne discusses the subject of unilateral asymmetry in a very practical manner, and appends a reference to the literature dealing with similar cases.

AN AFFECTION OF THE KNEE-JOINT SIMULATING DISLOCATION OF THE INTERNAL SEMILUNAR CARTILAGE

Mr. C. Byron Turner, Senior Surgeon of the Grimsby and District Hospital, records a very interesting case in a man aged 25, where after a twist, while working as a porter, the symptoms of displaced cartilage occurred. 'The joint was partly flexed, swollen, and extremely tender just below the internal condyle of the femur, where a well-marked movable swelling could be felt. Any attempt at extension caused intense pain.'

The condition was reduced by the application of firm pressure upon the swelling, and flexion of the

knee-joint. Ten days later the displacement occurred again, and was again reduced, this occurring several times. Mr. Turner advised operation.

Upon opening the joint by a longitudinal incision, a body presented itself, which was attached to the synovial membrane lining the capsule. The latter being cut through, the body was removed.

Mr. Turner has sent us a drawing of this body, the exact size.



'It measured one inch in length, half an inch in width, and varied from one-eighth to a quarter of an inch in thickness. It was tongue-shaped as a whole, but divided into three main lobes, and each of these into smaller lobes. In texture it was soft and elastic.'¹

The patient was quite cured. Upon a microscopical examination, made by Dr. G. Sims Woodhead, it appeared that the growth was derived from the synovial fringes gradually increasing in size towards the surface where the growth was most active and where the blood-vessels were still patent. A full description of the microscopic appearances is given in the report.

REPORT OF THE ROYAL COMMISSION ON TUBERCULOSIS

This report was presented to Parliament on April 22. Its object has been 'to inquire and report what is the effect, if any, of food derived from tuberculous animals upon human health, and, if prejudicial, what are the circumstances and conditions with regard to tuberculosis in the animal which produce that effect upon man.' In addition to material obtained from evidence from pathologists, physicians, and medical officers of health, the commission has instituted inquiries by Professor McFadyean, Dr. Sidney Martin, and Dr. Sims Woodhead upon (1) *means of recognising tuberculous animals during life*; (2) *the influence of tuberculous food upon the lower animals*; and (3) *the effect of cooking processes upon the flesh of tuberculous animals*.

Mr. Leopold Hudson, F.R.C.S., has acted as secretary to the commission.

¹ *British Medical Journal*.

Tuberculous meat.—With regard to meat it is comforting to know that tuberculous material, 'even in advanced cases,' is not often contained in the ordinary butcher's joint, and especially rarely in the muscles. In Dr. Martin's experiments, he found it far more easy to convey tuberculosis by inoculating animals with infected meat than by feeding them with it.

The chief danger seems to be from contamination of the outer part of a joint from contact with tuberculous material from other portions of the carcase at the time of preparation. This undoubtedly points to the necessity of care on the part of the butchers in the dressing of meat.

Tuberculous milk.—Dr. Martin's experiments show that 'the milk of a tuberculous cow is only infective when it comes from a tuberculous udder,' but under these circumstances the infectiveness is very great. Also the butter, skimmed milk, and buttermilk from milk from a tuberculous udder are likewise infectious.

The commission advises the withdrawal from dairies of every cow that has any disease whatever in the udder.

Dr. Sims Woodhead has found tuberculosis of the udder developed during the interval of a fortnightly inspection of cows.

There is said to be no difficulty in recognising an abnormal condition of a cow's udder, and when such is the case most certainly the cow ought not to be used as a producer of milk. The cow must be placed in seclusion, 'and every particle of her milk must be treated as highly dangerous during any delay that can be permitted for diagnostic purposes, and until the disease has been proved not to be tuberculosis.'

As regards sterilisation of possibly infected milk, the commission strongly advocates a heat not short of boiling.

A recapitulation is appended to the report in which it is stated: 'No doubt the largest part of the tuberculosis which man obtains through his food is by means of milk containing tuberculous matter. The recognition of tuberculous disease during the life of an animal is not wholly unattended with difficulty. Happily, however, it can in most cases be detected with certainty in the udders of milch cows. Provided every part that is the seat of tuberculous matter be avoided and destroyed, and provided care be taken to save from contamination by such matter the actual meat substance of a tuberculous animal, a great deal of meat from animals affected by tuberculosis may be eaten without risk to the consumer. Ordinary pro-

cesses of cooking applied to meat which has got contaminated on its surface are probably sufficient to destroy the harmful quality. They would not avail to render wholesome any piece of meat that contained tuberculous matter in its deeper parts. In regard to milk, we are aware of the preference by English people for drinking cows' milk raw—a practice attended by danger on account of possible contamination by pathogenic organisms. The boiling of milk, even for a moment, would probably be sufficient to remove the very dangerous quality of tuberculous milk.'

In the face of this report following the various statements so frequently emanating from the medical profession, the consumer of milk can hardly venture any longer to neglect taking care that his supply of this necessary commodity comes from a pure source. We propose at an early date to publish an account of the precautions necessary to be taken at dairies.

A CASE OF ADDISON'S DISEASE. NECROPSY

Dr. C. Crawford Aitkin reports the case¹ of a farm labourer, whose family history was good, but two brothers appear to have died from phthisis. Habits regular, home comfortable.

On November 28, 1894, he complained of weakness, nausea, and vomiting, and he had been ill for about nine months. The illness commenced insidiously with languor and feebleness, followed by headache, giddiness, palpitation, and shortness of breath. His troubles had been attributed to indigestion, but his friends had noticed that his face and hands had a peculiar yellowish discolouration.

'When I saw him,' writes Dr. Aitkin, 'on November 28, he was utterly exhausted with the recent and severe vomiting. Although of powerful build and muscular development, he was markedly emaciated, and one could not fail to be struck with the peculiar cachectic appearance he presented. The cheeks were hollow, the eyes sunken, the lips somewhat cyanosed; the ocular conjunctivæ were yellowish and slightly injected, while the skin had a distinctly sallow tinge, which on exposed parts, in the flexures of joints, and in the region of the genitals deepened gradually, though decidedly, into shades of walnut-brown, the hands, axillæ, genitals, and back of the neck being the regions most pigmented, while the scalp, front of the chest, abdomen, legs, feet, and mucous membrane of the mouth were apparently unaffected. The discolouration varied much in its

¹ *Lancet*, April 13, 1895.

intensity in different parts, but was of uniform type and uninterrupted by spots or mottling of any kind. The skin was free from eruption, excess of moisture, and itching; and there was, with the exception of blueness of the lips and faint duskiness and clubbing at the finger-tips, no cyanosis and no œdema. There were no evidences of acute suffering, but the whole attitude and expression of the patient betokened great mental depression and physical exhaustion. He lay in a listless, semi-comatose state, sighing and yawning frequently. He had no appetite, and complained much of thirst, heart-burn, flatulence, and pyrosis, with dull aching pain in the epigastrium and feelings of distension and weight about the stomach.'

'The bowels were sluggish and the fæcal matter small in amount and pale almost to chalkiness; but neither that nor the vomited matter contained any blood, and the patient did not suffer from hæmorrhoids. There was a loud hum in the external jugular vein and a systolic murmur in the cardiac pulmonary area. The heart was apparently free from valvular lesion; but the heart sounds, especially the first, were extremely faint. After a careful consideration of the symptoms of the case as a whole, and of the possibility respectively of malignant disease, gastric ulcer, biliary obstruction, chronic phthisis, Bright's disease, and pernicious anæmia, the provisional diagnosis of Addison's disease was made. The prognosis was hopeless, and the treatment, which consisted of milk diet, stimulants, and arsenic, was useless. The patient lingered on for three days, semi-comatose and almost pulseless, and died on the evening of December 1.'

At the necropsy, in addition to other general conditions, 'the spleen was small and shrivelled, and its pulp in a liquid condition; but the liver, gall-bladder, and bile-ducts, with the kidneys and the pancreas, were apparently normal. The adrenals both showed remarkable changes. The right one was, in its lower part, quite hard and calcareous, while the left was represented by a caseous, nodulated, cubical mass two and a half inches in diameter, which on section showed rounded cheesy areas of a yellow colour, separated from one another by bands of darker-coloured fibrous tissue. Each supra-renal mass was perfectly circumscribed, but surrounded by a considerable amount of thickened connective tissue, in which many of the nerve fibres connected with the solar plexus were implicated. No change, however, was observed in the surrounding ganglia, or in neighbouring lymph glands.'

The Practitioner's Note Book

Remedies for Influenza.¹—Dr. C. G. Grant has found tincture of cinnamon, one-drachm doses three times a day, very useful.

Mr. H. A. Stonham, of Stepney, has also found this remedy beneficial, pains in the head and back being relieved after three or four doses.

A Prophylactic for Influenza.—Among the many prophylactic remedies which have been suggested for influenza, that adopted by Dr. Sinclair Coghill, senior physician to the Royal National Hospital for Consumption, Ventnor, of giving daily doses of quinine is probably one of the best.

He considers that in quinine we have an almost unexceptionable preventive of influenza. He states: 'In October, 1891, I was consulted by the principals of a large educational establishment. The school consisted of nineteen resident pupils, besides teachers, servants, and day pupils. I advised that every resident inmate of the house should take immediately after breakfast a gr. v pill of sulphate of quinine. This injunction was strictly obeyed during the prevalence of the epidemic, with the result of complete exemption. One of the domestic servants who went to an adjacent town to attend her mother, who died of the epidemic, returned to her duties evidently suffering from it, but did not communicate it to any of the other inmates of the house.

'A singular corroboration of this protective potency was afforded more recently in this same institution. All the inmates were put upon the matutinal quinine regimen as formerly, with the exception of one of the principals, who was induced to refrain, from other considerations in connection with her health. The result was that she alone took influenza in a rather severe form, but did not communicate it, not even to her colleague who shared her room throughout, but who was protected by quinine. My own personal experience is further corroborative. In the same epidemic of 1891-92, I similarly placed my whole household, consisting of fourteen persons, on quinine. In consequence of my mind being very much preoccupied with professional and other anxieties, I neglected after a few days to take my breakfast dose of quinine, the result of which was that I contracted the disease from some of my patients, and in a very severe form, with pneumonic consolidations of the right base. My temperature for nearly a week was recorded nightly at 103·8°. I was so gravely ill that my solicitor was sent for, and spent more than an hour at my bedside. He was unable to rise next morning, and the disease spread to his family and servants; they all had severe pulmonary complications, and his wife succumbed. No other member of my family or household

¹ *British Medical Journal*, March 16 and 30, 1895.

was attacked, because, as I am strongly convinced, they were protected by quinine.

'I have since seen, in very many instances, further and equally convincing proofs of this prophylaxis. I am further impressed with the fact that the symptoms of influenza more rapidly yield to quinine with salicin if there be muscular or joint pains, or with ammonia in pulmonary complications, with a large administration of old dry champagne, for which, indeed, there seems to be almost as strong a craving as for air in the agonies of dyspnoea, than to so-called antipyretics or other depressants, which not only retard the resolution of the morbid phenomena, but to which I largely attribute the subsequent debility and protracted convalescence which characterise so many cases of this ailment.'

Visual Tests for Railway Servants and Sailors.—Mr. J. B. Lawford, Ophthalmic Surgeon to St. Thomas's Hospital &c.,¹ records two cases showing the want of efficient visual tests.

W. B., aged 30, has been in the service of one of the large railway companies for eleven years. Seven years ago he was examined by an 'inspector,' not a medical man, and passed as sound as regards vision and colour vision. Now he is found to have typical red-green blindness which ought to have been discovered at the first time of testing. He is now disqualified for his work.

W. W., a sailor aged 33, was found to be suffering from a high degree of hypermetropia which disqualified him for his work. His condition ought to have been discovered when as a lad he first went to sea.

It takes a long time to convince the public upon such matters, and it is only after many years of agitation that practical results are being obtained.

The North British Railway Company have only quite recently adopted Holmgrens Wool test and the 'spot' test at fifteen feet. This latter test only requires one third of normal vision, yet it has excluded about 100 men (drivers, firemen, and guards) who have not been able to come up to the required standard.

The title of Doctor.—We referred to this subject in February, stating: 'There exists a strong opinion that every qualified medical practitioner possesses the right to style himself doctor, whether he holds a university degree or not, and there is something to be said for this view of the case.'

The M.D. degree really signifies a teacher or professor as well as a practitioner of medicine, whereas another meaning of the word doctor is 'one duly licensed to practise medicine; a physician; one whose occupation is to treat diseases.' There would not be much harm done if the title were adopted by every medical man who was fully qualified to practise.

Dr. Charles Cotton, of Ramsgate, writes in the 'Lancet' (April 27, 1895) to the same effect, but he further suggests

¹ *British Medical Journal*, March 23, 1895.

a practical application of this view which seems to us to exactly meet the case.

After a long letter upon the subject, he adds as a postscript the following:—

'As a remedy for this complaint, which is extremely chronic, I would like to suggest to all those of the profession who are interested in this matter that they should loyally place as affix to their names the source from which they derive their prefix, as, for example, the M.D. Lond. would appear as Dr. Blank, M.D. Lond.; the M.B. Oxon. as Dr. Blank, M.B. Oxon.; the F.R.C.P. Lond. as Dr. Blank, F.R.C.P. Lond.; the L.R.C.P. Edin. as Dr. Blank, L.R.C.P. Edin., and so on. If this were universal, I feel sure that the petty jealousies of angry and disappointed men would no longer be periodically aired in the medical press; that the public would then be able to understand what their medical adviser really was; and that medical titles would become really titles of honour and like the various titles of knighthood, all of which have a common prefix but are vastly different in their sources, as, for example, the ordinary knight bachelors, bannerets, baronets, and those of the well-known orders.'

The Royal Commission on Opium have issued their report. There were nine members of the Commission, all well qualified to inquire into the subject, and only one among them dissented from the view that 'the common use of opium in India is moderate, leading to no evident ill-effects, and that excess is exceptional and is condemned by public opinion.'

Medical and other witnesses from every part of India gave evidence before the Commission, and it was shown that opium is used by the people of India as a common domestic medicine, especially in malarious districts, as a prophylactic against fever and as a remedy for diarrhoea, rheumatism, and other effects of a damp atmosphere.

The causes of movable kidney.—At the Surgical Congress at Berlin (April 18) Professor Küster, of Marburg, stated that he believed that a movable kidney was always due to mechanical causes. He especially referred to the effect of respiration in women who laced tightly and whose abdominal walls had become thinned by repeated pregnancies, the movements of the ribs producing pressure which in time caused looseness of the kidney. Direct violence also might displace the kidney or rupture it, and in confirmation of these views he had remarked that 93 per cent. of the cases of rupture occurred in men, whereas 93 per cent. of the cases of movable kidney occurred with women.

Nature and treatment of Sprue or Psilosis.—Surgeon Dyson, 'Lancet,' September 1894, p. 809, suggests as the cause of 'Hill Diarrhoea' or 'Sprue' that the drinking water contains small particles of mica.

Dr. Thin, in the 'British Medical Journal' 1895, p. 299, refutes this theory by proving that the disease exists in many places where mica is not to be found. The

same paper contains a very valuable contribution regarding the value, and indeed the necessity, of an absolute milk diet in all chronic intestinal diseases. A description is also given of a plan for concentrating milk, by which two pints may be condensed into one by gentle evaporation in a simple apparatus designed by Messrs. Allen & Son, of 21 Marylebone Lane, W. This is well worth the attention of practitioners, many of whom have doubtless experienced the difficulty of inducing patients to take sufficient quantities of milk, when the diet has to be limited to that fluid.

Direct insufflation in Acute Asphyxia.—Dr. Paul Thiéry ('Gaz. des Hôp.' No. 19, 1895) records his third case. After failure of ordinary methods, he proceeds as follows :

- (1) Tracheotomy.
- (2) Insertion of large cannula.
- (3) A deep inspiration taken by operator, and then slow and continuous insufflation of patients' lungs through cannula.
- (4) Gentle pressure of chest walls of patient by hands will help elastic recoil to expel the air.
- (5) The insufflation to be at rate of 10 in minute.
- (6) It is sometimes necessary to suck out an obstruction. With regard to the last suggestion, we do not consider that the medical man is called upon to run the risk of inhaling septic matters. Both for the insufflation and suction it would be well to use a small bellows. Bellows ought to accompany every case of tracheotomy apparatus.

Sir Benjamin W. Richardson once devised an apparatus by means of which air could be pumped into and out of the lungs through a cannula. It consisted of two rubber air bags placed side by side, both attached to a tube. The valves at the necks of the bags acted in opposite directions, so that one impelled the air forwards and the other drew it back. These air bags can be obtained from Messrs. Weiss & Co., 287 Oxford Street.

CLINICAL NOTES FROM PARIS

The sixth and last volume of the important text-book on the Principles of Medicine edited by Charcot, Bouchard, and Brissaud¹ has appeared. It is entirely devoted to diseases of the nervous system, and, being written by distinguished pupils of Charcot, represents the present teaching of the Salpêtrière school.

The important chapters on cerebral localisation and on general subjects, such as apoplexy, aphasia, cerebral hæmorrhage &c., are treated by Dr. Brissaud ; Dr. Guinon is responsible for the pathology of the medulla, the various forms of meningitis, spinal compression, and syringo-

¹ *Traité de Médecine*, Charcot, Bouchard et Brissaud. Tome VI. 1 vol. in 8vo., 1400 pp. with 220 fig. Price 25 frs. Published by G. Masson, Paris.

myelia. Dr. P. Marie has treated the various infectious and toxic myelites and spinal sclerosis. Dr. Babinski on the different neurites as well as Dr. Ballet on functional mental disorders have both treated their subjects in a masterly manner.

This volume presents an exceptional interest, being the latest publication on a class of diseases which the Paris School has largely helped to elucidate.

At the meeting of the Société Médicale des Hôpitaux (April 19, 1895) Professor Hayem, alluding to the recent discussion of the Medical Congress held at Munich, outlined his treatment of chlorosis. It consists of three factors :

1. Prolonged and absolute rest in bed, of great importance ; preventing any undue destruction of red blood corpuscles.
2. A diet varying with the kind of dyspepsia which generally accompanies chlorosis.

In most cases he has found a moderate degree of hyperacidity with some dilatation of the stomach, and orders a diet consisting of milk and raw meat at first ; later on he allows soft-boiled eggs, fish, green vegetables, and stewed fruit. Bread is forbidden for four or five weeks.

In 20 per cent. of the cases the gastric disturbance is more marked and requires a more careful treatment. Either one finds a severe parenchymatous gastritis with great dilatation, or a long-standing gastritis with diminished glandular secretion and deficient acidity.

In the former case the patient is put on a very restricted diet, massage of the stomach, and, in the event of abnormal fermentation, the stomach is occasionally washed out. If this be carried out, iron preparations will be well borne after a fortnight or a month.

In cases of deficient acidity, an iron preparation may be given from the first if one takes care to give it before food and to order some dilute hydrochloric acid half an hour after the meal.

3. As for the choice of an iron preparation, Professor Hayem has had the best results from the protoxalate, which he uses in doses of gr. i ss. in pill form 2-4 p. diem.

Veterinary Notes

HYDROPHOBIA

The Society for Prevention of Hydrophobia and Reform of the Dog Laws met at 25 Cavendish Square on April 8. Professor Victor Horsley, F.R.S., who occupied the chair, referred to the communications which had passed between the Board of Agriculture and the Society regarding the Dogs Bill.

Touching upon the subject of the extinction of rabies in our April issue, we stated that nothing short of a six months' muzzling thoroughly carried out throughout the whole kingdom would be effectual in exterminating rabies.

The Society above named states 'at least twelve months,' and we have no doubt that they have based this opinion upon a more practical knowledge of the subject than we possessed.

We would urge all lovers of dogs to support the Society, as it must be obvious that one thorough muzzling would be better for the dogs, simply on the score of their personal comfort alone, than the repeated temporary deprivation of their freedom to bite, which now is periodically imposed, independent of the advantages all dogs would gain by being rid of so serious a disease.

We say nothing about the advantages to the human race, because we do not find that such benefits receive any consideration from the large number of owners of dogs who have hitherto opposed the muzzling orders.

Health and Holiday Resorts

ROYAT-LES-BAINS—AUVERGNE, FRANCE



THE health resort, Royat, still possesses remains which prove its ancient origin, the Gallo-Roman baths, which remain to show the value attached to these springs in times gone by. Three large piscinæ, with all the require-

ments for heating the waters, lined with fine Carrara marble, show by their magnitude and luxurious construction that they must have belonged to a very important establishment, where the senators and the grandees of ancient Arvernian no doubt met to get cured of their ailments.

These Thermæ were built by the Romans after their conquest of the Gauls.

Modern Royat-les-Bains, situated in a valley below the village of Royat, is less than $1\frac{1}{2}$ miles from Clermont-Ferrand, the capital of the Puy-de-Dôme Department, and can be reached from the Place de Jaude in ten minutes by the electric tram. On arriving at the terminus, one enters the park, through which runs the picturesque stream of the Tiretaine. The bathing establishment occupies one side, the other side is

flanked by some of the hotels, the Casino, and the new theatre. The gardens, which occupy the centre, are beautifully laid out in terraces, surrounded by flower beds; in the centre of the principal avenue is the pavilion for the excellent orchestra which plays three times a day. At one end of this avenue is the important Eugénie spring, with its grand ebullition; at the lower end of the park, near the Roman baths, one sees the St. Mart and the St. Victor springs, and at the other end of the bathing establishment is the César spring, with its champagne-like baths.

The bathing establishment.—The bathing establishment of Royat is situated on one side of the park at the foot of the Puy de Chateix, which screens it from the north wind; it occupies a large surface of the valley, which is situated at an elevation of 1,500 feet above the sea level. This establishment is 125 mètres (417 feet) in length. The entrance hall has on either side a waiting-room, and the bureaux for the sale of tickets for bathing and drinking the waters. This hall divides the building into two distinct parts; the one on the right is entirely devoted to the ladies' department, that on the left is for men. These galleries contain on either side the bath rooms, and at each end, rooms for mineral sprays, carbonic acid gas baths, and douches: a staircase on either side of the hall leads to the inhalation rooms, the gallery containing the hot douches of mineral water, and the establishment for hydrotherapeutics with plain hot and cold water. One of the great features of the Royat bathing establishment is its swimming bath of flowing mineral water. This bath, situated in the right wing of the establishment, is a huge, square basin offering a surface of 433 square feet; its depth at one end is twenty inches, gradually deepening to six feet at the other end, thus allowing children and grown-up persons to take a swim in the same bath, at a temperature of 73°F. Leading out of the swimming-bath is the gymnasium and fencing room, very well appointed, and with excellent masters. These are most useful adjuncts in the treatment of those gouty cases which flock to Royat.

By this small sketch the reader will see that everything has been thought of for the benefit of those who seek a cure at Royat.

The springs.—The four springs are the Eugénie, César, St. Mart, and St. Victor; each have their speciality, differing in temperature and in their mineral composition, and therefore applicable to a variety of cases.

The Eugénie spring is one of the most important

springs in Auvergne, and perhaps in France, it throws up 1,000 quarts of a highly gaseous mineral water per minute at a temperature of 96°F.; it contains over 80 grains of salts per quart, chiefly composed of lithia, sodium as chloride, potash, and iron. It is largely used for drinking purposes, and it flows direct from the spring into the numerous baths, and out again through the overflow pipe, so that the patient is always in running water, and always at the same temperature.

St. Mart spring, called the gouty spring, is the most ancient of these waters; it takes its name from the valley, which formerly was called the valley of St. Mart, owing, no doubt, to an old monk of that name who in the year 440 founded a monastery at this place, where great miracles are said to have been performed by him.

No monks are now to be found, but miraculous cures are still to be heard of amongst the thousands who annually crowd to Royat, and partake of this beneficent spring; being only 86°F., it retains its carbonic acid gas, and is more sparkling than the Eugénie. This water contains 35 milligrammes of chloride of lithium, which no doubt is a great factor in clearing the system of the gouty poison.

This water is bottled and exported, and is most useful in carrying out a cure at home.

St. Victor spring. This spring, only lately discovered, is situated under one of the Roman baths, it must have been known to those great balneologists, as close to the spring exists a Roman column in a perfect state of preservation; the walls surrounding the spring are also Roman. This is the ferro-arsenical spring, containing 0.0045 grains of arseniate of soda to the litre (quart); it is a cool water and very sparkling, its temperature being 51°F.

The anæmic, chlorotic, diabetic, and all broken-down and overworked individuals flock to this spring, which is rightly considered the most invigorating of all the Royat waters.

César spring. This spring, at a temperature of 84°F., is used for drinking and bathing purposes; it has a small bathing establishment of its own, with twelve bath rooms. The water is extremely gaseous, and its mineralisation is less than that of the other springs; it is used internally for many gastric disorders. Used for bathing, it has great power of stimulating the cutaneous circulation and invigorating the whole system; as a table water it is very good, as it mixes well with wine, and particularly with the best white wine of the country.

After visiting the bathing establishment, the springs, Roman baths, and the gardens, the visitor crosses the rustic bridge over the Tiretaine, which will take him to the Casino and to the boulevard Bazin, leading to the village of Royat.

The old village of Royat is about fifteen minutes' walk from Royat-les-Bains, going up the valley towards the Puy de Dôme.

Its primitive houses, its barns, and tortuous, narrow streets contrast greatly with the fine hotels and villas of modern Royat-les-Bains. Volcanic hills, with lava in different stages, appear on all sides, yet the vegetation is most luxurious, magnificent chestnut and walnut trees adorn the main roads, behind which are extensive vineyards; interspersed among these are to be seen peach, apricot, pear, and apple trees in abundance, producing the exquisite fruit for which Auvergne is famous.

In the centre of the village is the fortress church, with its towers and battlements. This historical building is one of the rarest and most interesting specimens of its kind.

It has the shape of a Latin cross, and was built during the seventh century; about the beginning of the fourteenth century it was found necessary to fortify it by *mâchecoulis* so as to protect it against the invasion of the English. The steeple, destroyed in 1793, also had its battlements, and was replaced by the one now existing.

In the square, and facing the church, is an old cross of volcanic lava, with sculptured figures representing the Twelve Apostles; an inscription in Old French at its base indicates that it was made by a certain inhabitant of Issoire, an old town some miles away from Royat.

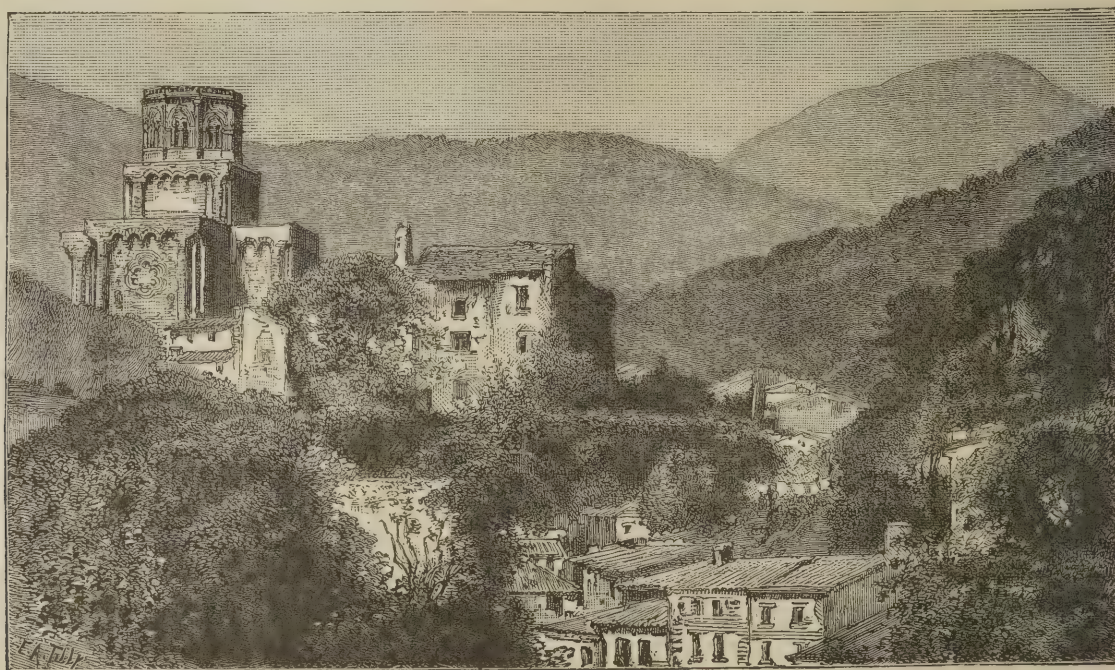
Excursions.—After visiting the old church, one leaves the village, and, going up towards the valley, the visitor will have to follow the new road leading to the Puy de Dôme. This route is most picturesque; well constructed, like all the French roads, it offers a gradual ascent which leads one to a bifurcation, on the left leading to La Pepinière, so called, as it is one of the Government nursery grounds for forest trees; and to the right, where one soon reaches the famous springs of Fontanas. These supply Royat and the town of Clermont-Ferrand with their delicious potable waters. These valuable springs were, like most good things, discovered by the Romans, who, by means of an aqueduct, of which one still sees the remains, carried the waters to Clermont; part of these waters is lost for a considerable distance, but is found after-

wards in the Grotto of Royat, occupying a recess in the valley. This grotto is most picturesquely situated, and is worth a visit; it also has its history, in which figure sorcerers, hermits, &c.

Parc Bargoin.—One of the most pleasant resorts, a quarter of an hour's walk from Royat, is the Park Bargoin, a very extensive property, left by its late owner, M. Bargoin, to the Department. The garden, most tastefully laid out, abounds in exquisite flowers and rare shrubs. Through shaded avenues one is led to a large orchard, where the finest specimens of the Auvergne fruits are to be found; a small

villages, and ancient castles are constantly coming into view; after an hour's drive, one reaches the plateau which crowns the volcanic mountain, and from there another view, still grander, presents itself before us. From there one sees in the distance the Puy de Dôme, the highest upheaval of lava in this region, surrounded by its nine extinct volcanos, the results of the extraordinary cataclysms which this region must have gone through in past ages.

The Casino and the theatre.—The Royat Company has been indefatigable in its efforts to procure for its visitors amusements and pastimes adapted to all



THE OLD CHURCH FORTRESS OF ROYAT

pavilion, where the former owner lived during the summer months, is situated in such a way as to show us from its balcony one of the finest views in Auvergne: it overlooks the whole of the town of Clermont-Ferrand, the vast plain of the Limagne just beyond it, and, further on, the far distant mountains of the Forez range. Here and there one sees several villages, and the celebrated town of Thiers.

On leaving the park, the visitor finds himself on the main road leading to Charade. Any one wishing to obtain a fair idea of the beauties of this part of Auvergne cannot do better than drive along this winding road. The views which unfold themselves during this ascent are charming: valleys, hills,

tastes and all ages; at the Casino the visitor will find a handsome ball room, where occasionally a dancing *fête* is given at night. A spacious reading room, well provided with English and French papers, as also a small library with English and French books. Billiard and card rooms are also open to those who, for a small sum, subscribe to the Casino.

The new theatre is a very fine building, beautifully decorated inside, and lighted by electricity.

Visitors can subscribe to the Casino alone, or to both the Casino and the theatre. These subscriptions include the use of a chair in the park during the morning, afternoon, and evening concerts.

One of the most agreeable means of exercise

at Royat is open to those who care for horse exercise.

The livery stables in Clermont contain a large number of excellent small horses, full of life and pleasant to ride, and specially adapted for climbing up the bridle paths which wind for miles through the pine trees covering most of the neighbouring mountains. The horses are brought up for choice daily to Royat, and are always used by a large number of the visitors.

Diseases treated at Royat.—Royat-les-Bains possesses a variety of springs, and various ailments can be cured by its waters. The chief character of these waters being tonic, it is not unreasonable to believe that the overworked individual will find relief from

the mucous membranes, laryngitis, rhinitis, post nasal catarrh, &c. ; many celebrated singers, actors, and orators owe their clear and powerful voices to the effects of these sprays.

The carbonic acid gas douches used by collecting the natural gas from these springs have been found to be most beneficial in a number of cases where a sedative action is required both externally and internally ; severe cases of peripheral neuralgiæ rapidly yield to the effect of these gas douches.¹

For those who wish to take the Royat waters without visiting the place, it may be mentioned that they can be obtained at the price of 30 francs for fifty bottles by applying to the Royat Mineral Waters Company, 5 Rue Drouot, Paris.



CLERMONT-FERRAND

their use. The anæmic, the chlorotic, the gouty, those who suffer from arthritic affections, or from disorders of the skin or mucous membranes, the neurasthenic, diabetic, and, in fact, all those who are below par, will find relief, not only by the waters taken internally and externally, but also by the pure, dry, mountain air, which aids them in digesting and assimilating their food.

The inhalation rooms at Royat are supplied with mineralised steam from the Eugénie spring, and are most useful in bronchial catarrhs and asthma. The mineralised spray from the same spring is greatly used by those suffering from chronic diseases of the throat and nose, such as granular inflammation of

The Route.—We will not describe the route to Paris, a route which will doubtless be well known to our readers, but we may say that to take the journey with comfort it is well to spend the night in Paris, and travel by the Paris, Lyons and Mediterranean Railway leaving at 9.10 A.M. and arriving at Clermont-Ferrand at 5.38 P.M. The Royat Hotel omnibuses meet this train, and it is better to get out at Clermont than to wait to go on by rail to Royat.

This is a very comfortable journey. The train stops at Montargis twenty-five minutes for *déjeuner*, and a very excellent meal is served in a very excellent

¹ The medical properties of these waters are fully described in Dr. Brandt's book on 'Royat, its Waters, and Climate.'

manner. There is no hurry, and no delay. You sit down to a comfortable luncheon, consisting of a series of well cooked dishes, and your next course is placed in front of you just before you have finished your preceding one. Moreover, you are assured at intervals how much more time you have before the train starts, and everyone gets up at the same moment, and you walk comfortably to the train.

We would call especial attention to the railway, for no line at the present day is more carefully conducted than the Paris, Lyons, and Mediterranean.

This article is based upon information obtained from our friend Dr. Brandt, of Nice and Royat, but our own personal experience of Royat has enabled us to verify his description and to add something to it.

THE ROYAL COLLEGE OF SURGEONS

Mr. Christopher Heath has been elected President, to fill the vacancy created by the death of Mr. Hulke.

This selection ought to give general satisfaction, for Mr. Heath's eminence as a surgeon, his qualities of firmness, urbanity, and administrative ability all combine to fit him peculiarly well for this honourable post.

Therapeutics

Remedies for constipation in cases of tea-poisoning.—

Wood writes on this topic in the 'Brooklyn Medical Journal' for November 1894. He says that the plan which was found to give the best results was to commence by interdicting the use of tea, coffee, or any form of liquor. This must be insisted upon in the strongest manner, else the patients, like all inebriates, will be found indulging their annoying importunities for tea.

The alimentary canal should be thoroughly cleared out by giving a rather large dose of calomel and jalap (8 grains of each) at night, to be followed in the morning by Rochelle or Epsom salts (1½ ounces). This will assure an almost completely empty intestine and the absence of fermenting material, which, in a large majority of cases, produces a true auto-intoxication. The patient should be kept on hot milk for several days, the only medication being 4 grains of caffeine and 8 grains of sodium bromide every four hours. This quiets the irritable nervous condition, and the limited food gives nature an opportunity to regain lost tone.

The use of cascara sagrada is commenced at this time,

the dose being from 15 to 40 minims every four hours. From the third to the tenth day the patient's diet is increased to the proper amount as demanded by the work performed, care being taken to eliminate such stimulating and non-nutritious articles as the starch and sugars, so far as possible.

The dose of cascara sagrada mentioned above may be increased and the time for giving it lengthened until the patient's bowels will move freely at least once a day by the employment of from ½ to 1 drachm at night.

In a number of cases, when this regularity has been observed, the following prescription will be found of great use :

R. Inspissated ox bile, pure	. . . . .	℥ ij
Sulphate of quinine	. . . . .	℥ j
Sulphate of strychnine	. . . . .	gr. j
Extract of cascara sagrada	. . . . .	℥ j
Extract of euonymus	. . . . .	℥ ij
Extract of gentian	. . . . .	q. s.

Divide into forty capsules ; 2 are used morning and night.

The inspissated fel bovis prevents to a large degree intestinal decomposition, accelerates peristaltic action, improves the intestinal digestion, and increases and hastens absorption. In being taken up by the liver it furnishes a fresh impulse and available material for the formation of new bile. The strychnine serves as a bitter tonic and a stimulant to the spinal centres, and the nerves of the splenic arcade, and, in turn, the glands which they supply resume their former activity. The euonymus is a cholagogue cathartic and stimulates the liver to secrete a better quality of bile. Enough of the cascara is used with the euonymus to assure a good passage from the bowels daily.

In a number of cases Fowler's solution is given so soon as the bowels are moving daily, and often with excellent results. The preparation of cascara which is given the preference over all others is the aromatic fluid extract or elixir. This palatable method of giving the drug should be resorted to whenever it can possibly be procured, and many patients who are in a neurasthenic and hysterical condition and have a horror of all medicines will offer little objection to this preparation.

The nerves of the alimentary canal during tea intoxication are in a torpid condition from over-excitation, and the secretions of the glands have been very much reduced by the large amount of tannic acid in the tea infusion. No drug has yet been found which will so well restore the lost tone of the debilitated gut and increase the secretion and peristaltic action as cascara. The action of the drug on the bowels is not sudden ; the more sudden acting cathartics, in the author's hands at least, have proved harmful. What is clearly indicated is a tonic laxative which will at the same time increase the action and secretion of the gastric, intestinal, and biliary organs.

In cases of constipation of short duration the capsule above given is not used, but dependence is entirely on the

casarea. It has been found eminently satisfactory. In those cases where the intoxication has extended over a number of years other medicinal agents must be added which will restore the lost bodily tone and correct functional perversion.

Treatment should not be stopped as soon as the patients feel better; in many cases it must be continued for several weeks. After the digestive troubles have been overcome and the system shows a tendency to establish an equipoise of health, a tonic pill is used for a considerable time. The constituents may be arranged to suit the advancement made. It is as follows:

R ^s Sulphate of strychnine	gr. j
Hydrochlorate of caffeine } of each . . .	3 j
Extract of damiana	
Hydrochlorate of cocaine	3 j
Extract or taraxacum	3 ss.

Divide in twenty pills, of which one should be given twice daily.

This excellent formula was arranged and much used by Professor W. H. Porter, of New York, with the most gratifying results as a stimulating restorative in all complaints which had associated with them loss of bodily tone. The caffeine and damiana are nutritive tonics of no mean ability to the cerebro-spinal centres and the motor nerves which supply the splenic arcade. The cocaine is only added in those cases where the hyperæsthesia of the solar plexus produces the sinking sensation in the pit of the stomach which is much complained of. By this procedure permanent relief can be given to the truly deplorable condition of by no means a rare class of patients.—*The Therapeutic Gazette*.

New Apparatus

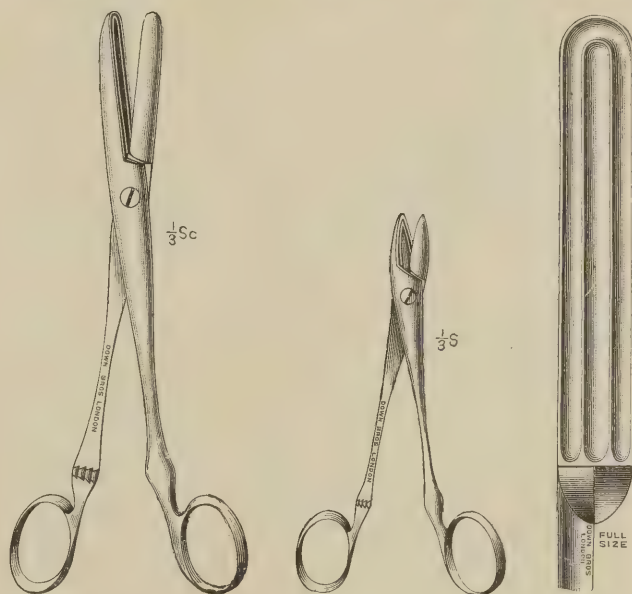
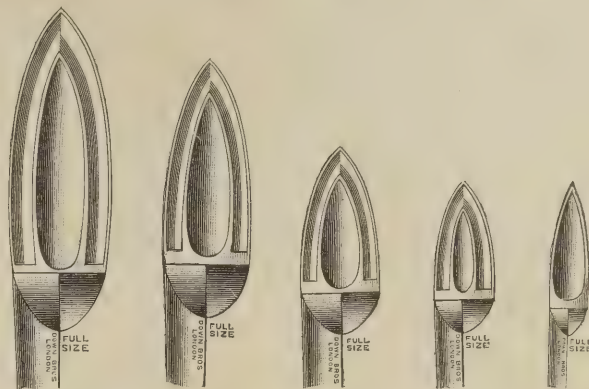
PROFESSOR GREIG SMITH'S MODIFIED WELLS FORCEPS

We give illustrations of a modification of the forceps introduced by Sir Spencer Wells, which have proved so valuable in surgery.

This modification has been suggested by Professor J. Greig Smith, of Bristol. The objection to the ordinary serrated jaws has been that their power of holding was less complete when pulled laterally than when pulled in a straight direction. The peculiar form of the jaws of Mr. Greig Smith's device is that of a sort of a double hawksbill. The depression in the centre allows the tissue held to bulge, and, especially in abdominal surgery, renders still firmer the hold, making slipping impossible.

It is stated that this forceps causes division of the inner coats of arteries, the advantage of which is obvious. Mr. Greig Smith states that in abdominal surgery it is hardly ever necessary to apply a ligature in the parietal incision or on divided adhesions if these forceps are used.

In the smallest figure it will be seen that there is only one lip, the outer; this arrangement is very useful for dissecting, or in picking up the peritoneum.



The forceps are made of various shapes by Messrs. Down Bros., of 5 and 7 St. Thomas's Street, Borough, S. E.

SELF-ADMINISTRATION OF ENEMAS

The late Mr. Richard Morris, who was so well known as the inventor of Morris's tubes for simplifying rifle practice in the army and for many other clever inventions, suggested the construction of an apparatus for the self-administration of enemias. This has been carried into effect by Mr. H. J. Lange, and can now be obtained from Messrs. Arthur & Company, 69 Berners Street, W.

Hitherto the self-administration of an enema was a very difficult and uncertain undertaking, and there

can be no doubt that a large number of persons have consequently suffered great inconvenience.

The directions given for using the nozzle are as follows: Oil or grease the nipple, and also the orifice of the bowel, and carefully insert the nipple into the rectum. This can easily be done with one hand. When the nipple is well within the bowel (it cannot go too far), the patient can sit down on a smooth

LANGE'S PATENT ENEMA NOZZLE

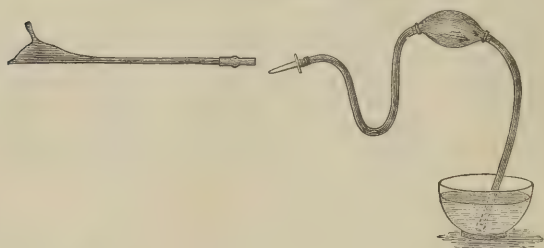


DIAGRAM SHOWING FORM OF NOZZLE

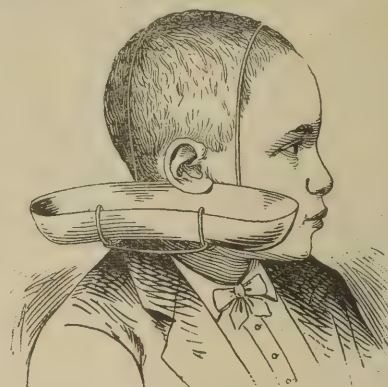
chair (a cane-bottomed chair with a towel spread upon it answers the purpose very well). The tube now projects between the legs, and is within easy reach of both hands. The nipple of any enema syringe can then be placed into the opening of the tube, and the enema easily injected. The basin containing the fluid to be used can be placed on a chair or a stool in front of the patient, so as to be within easy reach before he inserts the 'Enema Nozzle.' Enemas can thus be taken, if desired, in a closet, the side of the seat of the closet being used to support the nozzle.

A USEFUL DEVICE FOR HOLDING A PAN UNDER THE EAR.

By R. H. CUMMINS, M.D., WHEELING, W. VA.

Every physician who has syringed an ear knows the inconvenience to which the patient is subjected when the water trickles down the neck and the arm is cramped from holding the pus-pan. A very simple device for supporting the pus-pan under the ear I have found extremely serviceable and convenient. The holder is made of wire and is light, durable, and adjustable, and any tinsmith can make one in a few minutes. When placed in position, as seen in the cut, it fits snugly and comfortably under the lobe and leaves both hands of the operator and patient free.

The wire frame may be made to fit a small hard-rubber pus-pan nine inches by three inches and a half. The



device has saved me much annoyance and commends itself to one as a labour-saver.

New York Medical Journal, December 14, 1894.

The Nurses' Column

Nurses' Co-operation.—We are glad to find the 'Hospital' giving particulars of the 'Nurses' Co-operation' and advocating this excellent institution. Five years ago, when this co-operation was started, we gladly supported them, and have applied to 8 New Cavendish Street ever since whenever we have wanted a nurse.

It always seemed to us a monstrous instance of 'sweating' when nurses were farmed out and given the pittance of about 20*l.* a year, although they were earning 50*l.*, 60*l.*, or even 80*l.* for their proprietors.

Of course it may be urged that the bargain included board and lodging when they were unemployed, but in a large establishment this cost to the principal meant a very small item per nurse.

The 'Nurses' Co-operation' shows that 7½ per cent., or 1*s.* 6*d.* in the pound, is sufficient to cover all expenses, and so we may easily reckon the immense gains made by the owners of nursing establishments.

Taking 60*l.* per annum as the average of a nurse's earnings, and deducting 7½ per cent., it leaves 55*l.* 10*s.* Thus the farmer would, after paying 20*l.* to the nurse, net a sum of 35*l.* 10*s.* upon each one he employed.

The 'Nurses' Co-operation' thoroughly justifies its name. It was established by nurses, and was even indebted to two of them (Miss Belcher and Miss Napper) for pecuniary help to the extent of £100 each at starting.

Its merits were soon recognised by medical men, and Dr. Goodhart very kindly undertook the services of treasurer. Miss Honnor Morten acted as secretary, and Miss Hicks (previously matron of the Ormond Street Children's Hospital) undertook the management.

Miss Hicks, who had contemplated retiring from the management, has now consented to continue in that capacity, a determination which gives much satisfaction. Recently Miss Gethen has been appointed secretary; she was trained at Victoria Hospital, Chelsea, and at the London Hospital, where she afterwards held the post of ward sister for several years. Miss Gethen has contributed largely to current nursing literature, and is also known as the writer of many hospital stories which have achieved considerable popularity.

This association has proved itself a great success, and we write from considerable personal experience of the institution when we state that we have found the working eminently satisfactory.

We hope the day will soon come when the farming of nurses upon the unjust terms mentioned above will be impossible. It rests with the nurses themselves to bring about this reform, and to consent to only a reasonable deduction from their pay in order to cover the expenses of management of a nursing institution. Ten per cent., probably, should suffice.

Reviews

Round the Red Lamp: being Facts and Fancies of Medical Life. By A. CONAN DOYLE. (New York: Appleton & Co., 1894.)

This charming volume should certainly be read by every member of that profession which Dr. Doyle gave up for the career of literature—a career in which he has proved himself so eminently capable.

Many of his stories are not only true to the life but are most pathetic and interesting; others are creations of the author's imagination of a semi-medical character. Of the former we will take, for instance, the tale called 'A False Start.' It is the case of a young medical man starting life upon very slender resources in a large country town. He describes the tedious process of waiting for patients; his anxieties when financial means are approaching their end, and no patient has come to consult him. Some pathetic but amusing incidents are given of how the young doctor's first patient cannot pay the small fee of half a crown for what he has done for her and her child, and how he at last gives her some coppers from the few shillings that remain to him, instead of accepting anything from her. Suddenly he is summoned to Lady Millbank, the wife of the wealthy man of the place, to meet the leading practitioner of the town. He arrives there first and offends his host by refusing to see the patient until the regular medical attendant has arrived. He sees her, however, upon the plea of immediate urgency. He ignores Sir John's arbitrary directions that he is not to examine the patient's chest, and maintains throughout a thoroughly dignified and honourable demeanour.

Upon coming from the patient he finds that Dr. Mason with a London consultant has arrived, and it seems that Dr. Wilkinson—the hero of the story—was not the Dr. Wilkinson whom it had been proposed to call in in consultation. The latter gentleman had now also arrived, but the arbitrary Sir John refuses to have anything to do with his ordinary medical man and the consultant, declaring that, for the future, his wife shall remain under the care of this new and determined young practitioner.

The former medical gentlemen leave the house, and here is a temptation to the hero of the story—of whose penurious condition we already know—to commence his career with a lucrative patient, but he utterly refuses to accept this position, stands up for the dignity and etiquette of his profession, and leaves the house and the irate Sir John.

In the words of Dr. Doyle: 'This false start of his was a true start also, for it soon came to Dr. Mason's ears that his junior had had it in his power to carry off his best patient, and had forborne to do so. To the honour of the profession be it said that such forbearance is the rule rather than the exception.'

In the end 'there was a grateful note, a visit, a friendship, and now the well-known firm of Mason & Wilkinson is doing the largest family practice in Sutton.'

There is not a story in this book that we have not read with pleasure; they are many of them sad or pathetic tales but true to life and sound in sentiment.

The Aseptic Treatment of Wounds. By Dr. C. SCHIMMELBUSCH; translated from the Second German Edition by ALFRED THEODORE RAKE, M.B., B.S., F.R.C.S. (London: H. K. Lewis.) Crown 8vo. Price 5s.

This work is an exposition of the plan of treating wounds now much in vogue on the Continent, and is an attempt to demonstrate the advantages of the *aseptic* as contrasted with the *antiseptic* method originated and elaborated by Lister and his followers, and commonly practised in this country.

The author, after discussing the causes of wound infection, enunciates the different ways in which infective germs may be combated and rendered innocuous, the germicidal agents being: (1) heat, and (2) various chemical substances, and he advocates the use of the former, though not completely discarding the latter.

One of the most important problems of asepticism is the cleansing of the surface to be operated upon and of the hands of the surgeon, and here the author recommends mechanical rather than chemical agencies. For the sterilisation of metal instruments he points out that it is not sufficient to place them in a dilute carbolic solution; they must be previously submitted to the agency of heat, which should be effected by immersion for five minutes in boiling water to which one per cent. of washing soda has been added.

The process of sterilisation of dressings by steam is dealt with in detail, and the somewhat cumbrous and complicated apparatus necessary for the purpose is depicted

and described. Only in those cases where the discharge is thick and tenacious, or where a large cavity has to be plugged, is any antiseptic necessary, and in such cases iodoform is the only substance recommended. Sterilised catgut is used in preference to silk.

Directions are further given for rendering hypodermic and aspirating needles and catheters aseptic.

The work is an admirably clear description of the technique of aseptic as opposed to antiseptic surgery, and, if we were not cognisant of the results obtainable by the latter method, would be assuredly convincing. We question, however, whether the author could show better results than any strict disciple of up-to-date Listerism. We would, moreover, point out the constant overlapping of the two plans. For example, we are in the habit of sterilising by heat our instruments and ligatures, and so of rendering them aseptic, while Schimmelbusch uses antiseptic solution for his instruments, and in certain cases antiseptic applications to wounds.

The conclusion we arrive at is that asepsis and antiseptis are two different means of attaining the same end, and possibly the surgeon, on contemplating the elaborate apparatus necessary for sterilisation, may be led to the conclusion that antiseptic surgery as practised here is at any rate more convenient than aseptic surgery as advocated by Schimmelbusch, and possibly the greater simplicity of our method may make him hesitate before adopting the one under notice.

The following figures will give an idea of the apparatus recommended :

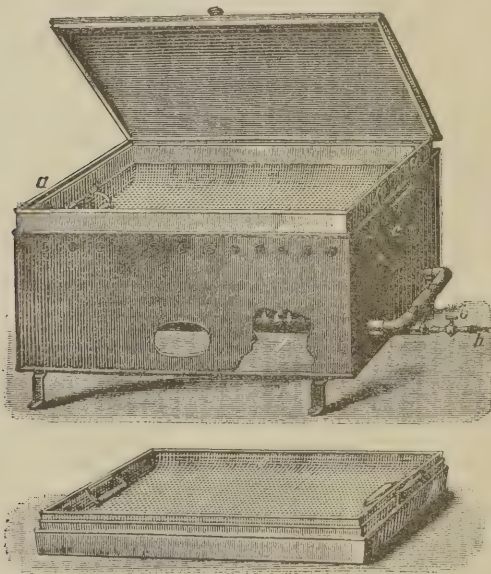


FIG. 4.—APPARATUS FOR STERILISING METAL INSTRUMENTS WITH SODA SOLUTION

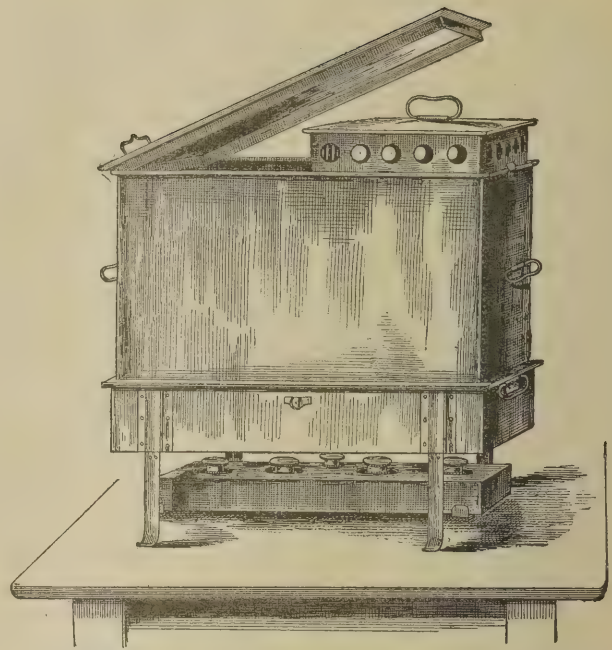


FIG. 10.—STERILISER FOR DRESSINGS WITH THE DISINFECTING CHAMBER OPEN; A BOX FOR THE DRESSINGS IS BEING INTRODUCED

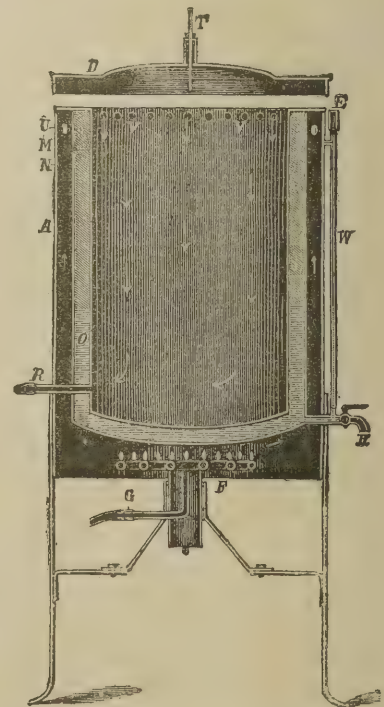


FIG. 15.—STEAM STERILISER FOR DRESSINGS. SECTION

CLINICAL SKETCHES

JUNE 1895

Life Insurance, Heart Disease and Schott's Treatment



THOSE who have suffered from chronic heart disease, in whatever form, have in the past been practically excluded from the benefits of life insurance. The British offices have either declined such lives altogether, or have raised

their premiums to such a height that their terms have been almost prohibitive.

It is now suggested that modern treatment has so increased the probabilities of a longer life to sufferers from heart disease, that the insurance offices would do well to modify their terms.

An important point in respect to this subject is that the sufferer from heart disease was at one time subjected to a life of almost absolute inactivity, whereas during recent years such exclusive treatment has been considerably relaxed.

It had been found that a certain amount of gentle exercise was not only harmless but positively beneficial. To Dr. Stokes is due, in a great measure, the recognition of this fact, and Sir William Broadbent and others have been for some years recommending such practice.

It remained, however, for the brothers Schott to devise a system of baths and systematic exercises which some think will create a new era in the therapeutics of heart disorders, and it will be seen from the records given below that there is considerable evidence of the success of this treatment. We would, however, caution the enthusiast not to depend too greatly upon

the beneficial effects of this method. It is a remarkable fact that all new methods of treatment seem to have great effects for a time, not only in heart disease, but in many other morbid conditions.

We should like to have further evidence upon the subject before we can believe that the considerable organic lesions which occur in many cases of heart disease can be absolutely *cured* by Schott's treatment.

The system devised by Drs. August and Theodore Schott consists in the application of certain baths and carefully regulated exercises, and this treatment has the effect of endowing the heart with such recovery of function and repair of tissue as may constitute it actually or practically sound.

Dr. W. Bezly Thorne has taken a very prominent part in introducing this method of treatment to the notice of the medical profession in this country, and in several lectures and papers, and in a small pamphlet published by Messrs. Churchill, he has described the details of the treatment.

The baths most frequently employed are those of Nauheim, containing about $1\frac{1}{2}$ to $2\frac{1}{2}$ per cent. of sodium chloride, with about the same amount per thousand of calcium chloride, ferric salts, a proportion of natural carbonic acid gas, and with a temperature of 88° to 95° F.

It is quite possible, however, to carry out the treatment with artificially prepared baths, and their mineral strength can be altered, and other details can be graduated in the same manner as is done at the natural baths. Dr. Bezly Thorne describes the method of treatment as follows:—

'An interval is imposed after each second, third, or fourth bath taken in daily succession, and it is prescribed that each bath should be followed by an hour's rest in the recumbent position. It is important that careful observation of the patient's general condition and of the state of the heart and pulse, both before and after the baths, should be made from time to time in order that precise instructions may be given as to their strength and duration. Generally speaking, the effects of the baths are: cutaneous excitation, amounting, in the stronger effervescing baths, to rubefacience; a sense of refreshment not inconsistent with appreciation of the prescribed hour of rest; stimulation of the appetite; and an eventual gain in weight. Their effect on the pulse is at once to reduce its frequency and to increase its force, and very soon the heart is induced to expel the blood stream faster than it returns. Indeed, the efferent vessels, down to the smallest arterioles, seem to be stimulated to greater carrying capacity and functional activity, and metabolic change becomes proportionately accelerated and improved; at the same time the combined influences of the temperature of the bath, and of the cutaneous excitation it induces, forbid a conflux to deeply seated organs, and congested viscera are made to partake in the effect of the general health-restoring impulse. In the case of a patient whose pulse, when he is in a state of repose, beats from 78 to 84 times in a minute, and whose heart is quite sound, I found that, on four occasions of immersion in one of the effervescing saline baths, it had within two minutes fallen to from 60 to 64; in ten minutes it had risen to from 66 to 68. The exertion of dressing raised it to from 76 to 78, but after he had walked three-quarters of a mile to his room and assumed the recumbent position it fell to from 62 to 66. It will, therefore, be observed that the influence of the bath was not limited to the period of immersion, and it is reasonable to suppose that the allied results are not more transient.

'The exercises to which allusion has been made are denominated by their designers *Widerstandsgymnastik*. They consist of movements calculated to bring into successive and regulated action almost every collective system of voluntary muscles which is comprised in the human frame. The patient is instructed to breathe slowly and regularly during their performance, and to warn the attendant of any approach to palpitation. It is the office of this latter to resist each of the prescribed movements with a measure of force which just falls short of that which would be necessary to arrest it;

to impose a short interval between each movement; and so carefully to watch the patient as to avoid sweating and the slightest distress of breathing, as indicated by the *alae nasi*, the angles of the mouth, and the movements of the chest. The exercises consist of flexions and extensions, as well as adductions and abductions and rotations of the extremities, both upper and lower, in orderly succession, together with rotations and flexions of the trunk, care being taken that the same movement should not be practised twice in immediate succession. The dimensions of the heart, and the character and quality of its sounds, should be ascertained by the physician before and after successive series of exercises. Their effect on the pulse is to materially increase its force, although diminution in the frequency of its beat is often delayed, sometimes even for a few days, but not so the diminution in size of a dilated heart. I have had the opportunity of observing, in one hour, a shrinking of the area of dulness, as measured obliquely a little below the nipple line, of four, and even six, centimetres, and of two and three centimetres in the vertical line. In other cases, half an hour, and even twenty minutes, have sufficed to induce notable diminutions in the area of dulness. As a general rule, the exercises are not persevered with for more than half an hour at a time; but, in any case, their careful control and regulation by the physician in attendance effectually secures the damaged organ from injury; and, in this respect, the method under consideration may compare favourably with systems of climbing, as recommended by Oertel, and with movements produced by mechanical appliances.

'Immediate effects upon the heart.—Let it at once be acknowledged that the whole of such contraction does not represent a permanent gain. In the time that intervenes before the next day's exercise, the dilated organ tends to return to its former dimensions; but, in favourable cases, every bath and every series of exercises leaves recorded on the damaged heart a measure of contraction which is appreciable on the following day, and is generally, in the end, found to be permanent. It will be observed that the effects of the baths and exercises, though similar in their direct effect on the heart, are not identical in some other respects. The retardation of the pulse is immediate in the case of the baths, it is generally not so with the therapeutic exercises; while, on the other hand, the amount of heart contraction induced by the exercises is greater and perhaps more imme-

diate than that generally observed to follow a bath. These points of difference are not without importance in relation to treatment, and it must rest with the physician to decide, in each case, whether either treatment should be pursued to the exclusion of the other, or whether both should be brought into requisition at suitable times and intervals. It must not be overlooked that, as with the baths so with the exercises, other organs share in the general recuperative process. Such is especially the case with congested abdominal and pelvic viscera. It is not uncommon for a free flow of urine to ensue; and, where the liver is enlarged as a consequence of the existing impediment to the circulation of the blood, a diminution of as much as from one to four centimetres in vertical measurement may take place in one hour, subject, however, to subsequent fluctuations similar to those which have been shown to take place in the dimensions of the dilated heart. That the diminution of the area of cardiac dulness is not due to increased inflation of lung tissue induced by the exercises, is shown by the fact that, even where the extreme amount of contraction is induced, the level of the diaphragm either remains stationary or moves in an upward direction. Certain it is that after the exercises the patients breathe deeper and more slowly, and it is not uncommon for a patient, while performing the movements, to volunteer the remark that he feels that a load is being moved from the chest. In the case of the baths every one of the sensitive nerve branches distributed over the immersed surface sends its influence back to the parent centre. That the nerve centres are brought under powerful influence is attested by the striking trophic changes which may be observed to follow a course of Nauheim baths unaided by the internal use of natural or pharmaceutical remedies, in cases of anæmia, wasting, neurasthenia, and above all in cases of osteoarthritis. In such cases the rehabilitation of the trophic and probably of other central nerve tissues is so lasting that progressive improvement may be observed to be taking place for three or more months after the completion of the bathing course; and it need hardly be pointed out that such a process of general restoration is a factor of scarcely secondary importance, even where the cardiac condition claims the attention of the physician as the main indication for treatment. Dr. Schott is of opinion that the stimulation of the nerves of sensation, induced by immersion in these baths, is not alone the result of the cutaneous excitation already alluded to, but that an additional and

more prolonged stimulation is excited by imbibition into the superficial layer of the corium of some of the mineral constituents of the waters, and by absorption of the carbonic acid gas given off by effervescence. It is as interesting as it is important to note that no restrictions as to the amount of fluids taken by the patient are enforced in the case of treatment either by baths or exercises.

‘Practical results.—Dr. Theodore Schott, as the result of observations extending over some eighteen years, affirms that benefit may be expected to accrue in all cases of chronic heart disease, whether of valvular or parietal incidence, except where such conditions have led to, or coexist with, either advanced myocardial or arterio-sclerotic degeneration or aneurysm of either the heart wall or a great vessel. I have myself witnessed improvement amounting to practical—or, more rarely, actual—cure in such cases as the following: stenosis of either the aortic or mitral orifices; stenosis of both; insufficiency of either or both, in each case with dilatation; dilatation consequent on myocarditis, on habitual hæmorrhage, and on anæmia; fatty degeneration of the heart (interstitial); weakened heart; congenital mitral insufficiency; patency of the foramen ovale; and angina pectoris of both neurotic and organic causation. The diagnostic and prognostic value of the therapeutic exercises must not be overlooked. Familiarity with the effects which they may be expected to produce on healthy and on weakened walls assists the physician in the detection of early stages of dilatation which it might otherwise be difficult or impossible to recognise. More pronounced dilatation may be readily differentiated from parietal hypertrophy, superincumbent fat, and pericardial infiltration. The measure of contraction induced by a few exercises readily discloses whether an excessive area of dulness is due to dilatation or to a substantial mass of unyielding tissue. As regards prognosis, valuable information may be derived from observation of the rate at which præcordial dulness yields to the treatment, and by ascertaining, after the lapse of a few days, before the exercises have been performed, what measure of more than temporary contraction has been secured. Lastly, an unsuspected valvular lesion may be betrayed by the development of a bruit while they are in progress.

‘Permanent results.—A question of no secondary importance is: May such recovery of heart power and efficiency, together with the improvement in the general health which is contemporaneously effected

by the methods under consideration, be so enduring as to justify, in the greater number of instances, the return of the subject to the cares and labours of an active life? From my own observation, and from the testimony of many patients who have spontaneously returned to Nauheim either to confirm their recovery or to express gratitude for its permanence, I am able to reply,' says Dr. Bezly Thorne, 'that such is the case.'

He then records notes of a few cases which are very remarkable and interesting.

TREATMENT OF HEART DISEASE

In connection with the foregoing article upon Schott's treatment of heart disease, we would draw attention to a very practical paper by Dr. Byrom Bramwell, read at a discussion on cardiac therapeutics at the Medico-Chirurgical Society of Edinburgh on February 20, 1895.¹ He laid great stress upon a correct diagnosis, regarding (1) the nature, severity, and extent of the lesion, and whether it is progressive or stationary; (2) the condition of the cardiac muscle; (3) the condition of the arteries; (4) the condition of the tissues and organs as a whole; and (5) the special peculiarities and surroundings of each individual patient.

Dr. Bramwell's article is too long for even a full *résumé* in these pages, and it should be read by all who are interested in the subject. He remarked at the outset that the condition of the cardiac muscle is the key to cardiac therapeutics—a statement which applies not only to those diseases in which the myocardium is the primary seat of the lesion, but to almost every form and kind of heart disease.

Tissue degeneration of all kinds, and especially arterial degeneration, was discussed as a point of the greatest importance.

With regard to Schott's treatment, Dr. Bramwell stated that he had no direct personal experience, but had learned, from the experience of patients who had undergone that treatment, to think that it will be chiefly valuable in cases of fatty infiltration, flabby hearts, and in gouty conditions unassociated with atheroma, and without any marked degree of high pressure in the peripheral system of vessels, also in those cases of valvular lesions in which the cardiac muscle is reasonably sound.

¹ *Edin. Med. Jour.* May 1895.

He concluded a very interesting paper by giving what he called a 'financial illustration' of his subject.

'**Financial illustration.**—Take the case of a trader with ample resources and a large balance at his banker's. He has a big reserve and is able to carry on a large business, to turn over vast sums, and to meet any ordinary demand, even when it is suddenly made, without undue strain or effort—in fact, with advantage to his business, that is, to himself. His reserve is ample for all his requirements. A healthy heart resembles such a man; ordinary legitimate efforts and exertions are beneficial to it; its power is increased by exercise; and it possesses an ample reserve of energy which enables it to meet any sudden strain which is thrown upon it—always provided that the strain is not unduly severe nor unduly prolonged, and that after a severe or prolonged effort time is afforded for recuperation and the restoration of its nutrition.

'Now, suppose our trader enters into a big speculation which is unsuccessful, and loses a lot of money. If the demand upon him is very great, his balance at his banker's may be insufficient; and if the call is very sudden he may not have time to realise his locked-up funds, in order to meet the large demand which is suddenly made upon him. Under such circumstances bankruptcy may be the result.

This condition of matters resembles that of a heart in which a very severe lesion is *suddenly* or *rapidly* developed; the effort which the lesion demands may be so sudden that the heart cannot put forth its reserve energy: it may be paralysed, and may succumb to the lesion.

'Cases of this kind, both in the financial world and in cardiac pathology, are very rare. The creditors will, in the vast majority of cases, give the trader time to realise his locked-up funds, or will take over his securities in order to meet the debt.

'The same thing is seen in the case of the heart. Even grave valvular lesions which are rapidly developed are usually followed by the production of some compensatory changes. The heart gets time to put forth its reserve energy, and Nature makes an effort to produce those compensatory changes which are required to restore the balance of the circulation.

'But although the trader may be able to meet a heavy loss and to stave off bankruptcy, his resources may be permanently damaged. A large part of his reserve has been exhausted. Under such circum-

stances he takes care, if he is a wise and prudent man, to alter his mode of trading; he restricts his operations, does a safe, non-speculative business, and, above everything else, takes every precaution to prevent a repetition of the disaster which has crippled him.

‘Exactly the same thing is seen in the case of the heart. A valvular defect which remains, say, after an attack of acute endocarditis materially cripples the power of the heart. The patient is not the same man that he was before. If he is a wise man he will take care to alter his mode of life so as to avoid throwing sudden strains on the damaged heart, and he will be particularly careful to avoid everything, such as a second attack of rheumatic fever, which is likely to reproduce the endocarditis which was the cause of the original lesion. The compensation which is in the course of time produced may be sufficient to meet ordinary efforts, but extraordinary ones cause embarrassment and failure of the circulation.

‘**Take another case.** Suppose that our trader has had a heavy loss, which has necessitated the expenditure of most of his reserve capital; and suppose that the drain does not cease with the first loss, but steadily continues, although it may be in a very slight degree. His expenditure is, perhaps, year by year a little larger than his income; he has, consequently, to make use of his remaining capital; it sooner or later becomes exhausted; and, finally, he has to live from hand to mouth. When this stage of matters is reached, a very trifling call, a demand for a sum which he previously would have regarded as a mere fleabite, is severely felt; it may be sufficient to produce bankruptcy. In a case such as this, in which the expenditure always exceeds the income and the capital is being constantly drawn upon, the time must sooner or later come when the reserve will be exhausted.

‘Exactly the same thing is seen in the case of the heart. Most chronic valvular lesions are progressive. In many cases, it is true, the progress is very slow, but there is a constant demand for the production of more and more compensation. Under such circumstances, a time will inevitably arrive when the lesion will get the upper hand, and when the amount of compensation will be insufficient to maintain the balance of the circulation. It is at this stage of the case that urgent symptoms arise and that active treatment is most required.

‘Further, when the reserve is almost entirely exhausted, even if the compensation is under ordinary circumstances able to maintain the balance of the circulation, comparatively trifling efforts or ailments (such, for example, as a trivial attack of bronchitis, which throws an increased strain on the right ventricle), which in conditions of health would produce little or no disturbance in the circulation, may upset the balance, and may be attended with the production of grave symptoms, such as general dropsy.

‘The trader whose capital is exhausted, and who is in serious straits in consequence of a comparatively trifling demand which is made upon him, may be able to meet the temporary difficulty by the assistance and help of a friend, and, after settling the demand, may again be able to resume his restricted mode of trading. So, too, the heart which is seriously crippled by a valvular lesion may, when the compensation is temporarily upset (say, by the trivial attack of bronchitis), be enabled to pull through the attack of bronchitis by the kindly assistance of digitalis or strophanthus, and, after the bronchitis has subsided, be in a position to go on, for a time at least, much in the same way that it did before.

‘**Take another case.** A trader who is overloaded with heavy liabilities and with a damaged business may arrange with his creditors, and after writing off some of his liabilities may be enabled, though crippled, to start again in a much better position than he was before. Exactly the same thing is seen in the heart. In many cases of chronic cardiac disease, by free purgation, by removing dropsical accumulations from the internal cavities, or by venesection, the heart-strain may be relieved and the organ enabled to resume its operations, and to go on for a time much more satisfactorily than it could before. Even in the gravest cases extraordinary improvement may sometimes result from active treatment. No better illustration could be given than the remarkable case which Dr. Sloan recently brought before the Society at one of our recent meetings.

‘Again, in some cases a trader’s business is so thoroughly rotten that any extraneous help which he can obtain is useless to stave off bankruptcy. Exactly the same condition is seen in the heart. In advanced stages of myocardial degeneration, digitalis, strophanthus, and other tonics and stimulants may be totally useless to produce any improvement. Under such circumstances, the only termination which can be looked for is death.’

NOTES BY THE EDITOR

AGAIN I have to record losses from our ranks which can ill be borne—Sir George Buchanan and Mr. Arthur Durham. Obituary notices are not particularly in accordance with the objects of this Journal, but it is impossible to pass over such eminent men as those I have referred to.

I received a letter from Arthur Durham a few days before his death, in which he expressed himself in his usual cheery way, enclosing the photograph which is reproduced opposite page 176. Little did I think that it would be used as a representation of a past celebrity. The photograph was sent me for the July number of this Journal, in which I am about to give portraits of readers of addresses, the presidents, and some of the secretaries of the fifteen sections of the forthcoming annual meeting of the British Medical Association.

Durham was to have read the address in surgery at this meeting. He always took much interest in the Association, and was very successful a few years ago as President of the Metropolitan Counties Branch.

The meeting to be held in London this year is an event which cannot be overlooked even by those who, for various reasons, hold aloof from joining the Association. The number of members has immensely increased since the last meeting in London, twenty-three years ago, and it is probable that between four and five thousand, at least, will attend upon this occasion. In estimating this number it must be remembered that there are over twelve hundred members of the Metropolitan Counties Branch.

On Thursday, May 30, I had the pleasure of being a guest of Mr. Jonathan Hutchinson, who, as President of the Dermatological Society of Great Britain and Ireland, gave a conversazione at 1 Park Crescent on that evening.

The Clinical Museum formed by Mr. Hutchinson at 211 Great Portland Street and the house adjoining (1 Park Crescent) is filled with drawings, photographs, pathological preparations, and volumes of notes and references of the most varied and interesting description. One might call the place crowded, were it not

that everything is arranged in such excellent order. The formation of this museum is an additional example of the energy and assiduity which are so characteristic of the founder.

Those who have not yet visited this Clinical Museum should take an early opportunity of doing so, the rooms being open to the medical public every Tuesday afternoon, when Mr. Hutchinson adds to the usefulness of the collection by giving lectures.

It seems to me unfortunate that pathological museums are comparatively so little used. It is, perhaps, owing to the unsystematic manner in which such collections have been arranged. It is only in quite recent times that facilities have been given for studying subjects in a convenient manner, even in the Hunterian Museum.

The old system of making a museum principally a collection of curiosities has been giving way to better classifications, and to the assemblage of notes, photographs, and drawings in juxtaposition with the morbid specimens for purposes of comparison and systematic study.

Considering the number of treasures which exist in our London hospital museums, as well as in the Hunterian Museum, it is certainly remarkable how comparatively few workers resort to their shelves for information.

Last month I remarked upon the exclusion of Fellows of the Irish College of Surgeons from competition for vacancies upon the surgical staffs of some London hospitals. One or two further facts have come before me, which I defer for another occasion.

It is satisfactory to find that some institutions exist which are inclined to take a more progressive course. The British Lying-in Hospital, which is the oldest of its kind in this country, has recently, by the action of its governing body, called together the governors for the purpose of altering the laws, because such laws were out of date and unjust. Upon the retirement of Dr. Fancourt Barnes, who had been Physician to this institution for sixteen years, the committee wished to elect him Consulting Physician, but their laws only permitted one Consulting Physician and one Consulting Surgeon, such positions being already occupied by Sir William Priestley and Sir Spencer Wells. They thereupon altered their laws, and elected Dr. Fancourt Barnes as additional Consulting Physician.

Original Papers

SOME TYPES OF IMBECILITY AND MENTAL ENFEEBLEMENT

By FLETCHER BEACH, M.B., F.R.C.P. LOND.

Physician to the West End Hospital for Nervous Diseases, and to the Winchester House Training Institution; formerly Medical Superintendent of the Darenth Schools for Imbecile Children.

Definition.—Imbecility is a mental deficiency depending upon imperfect development, or disease of the nervous system, dating from birth or from early infancy. Mental enfeeblement is a milder form of mental incapacity. While these definitions sufficiently designate the mental state which exists in each case, it must not be forgotten that certain physical characteristics are associated with both conditions, such as a slouching gait, want of co-ordinating power of the body and limbs, a wandering eye, inertness or too great restlessness, abnormal head, and signs of the scrofulous cachexia. In fact, the presence of these and other conditions in association with fixed mental characteristics enables us to divide the cases before us into definite groups.

Systems of classification.—Various systems of classification have been adopted. Some authors base theirs on the amount of speech which the patient possesses; others classify according to the degree in which the reflex and volitional functions are manifested. The classification which I have adopted is very simple: cases are divided into congenital, *i.e.* occurring at the time of birth, and non-congenital, in which the defect appears afterwards.

CONGENITAL CASES

Dealing first with the congenital cases, I would remark that these can often be distinguished by a small or badly shaped head, a Λ -shaped palate, large ears implanted too far back, indistinct speech, and in very low types a flow of saliva from the mouth, and sluggish or automatic movements.

Congenital cases include patients of a low and some of a very high type. The following is a case illustrating the first class.

Case I.

B. B., a boy, aged 14, has a somewhat animal face, with pug nose, thick lips, and large ears. His head measures $19\frac{3}{4}$ inches in circumference, and is narrow in front. There is a history of phthisis on both sides of the family, and his father is very nervous. On

admission he was unable to speak or utter a sound. Circulation feeble, special senses defective, little power of observation or imitation; his attention could only be arrested for a very short time. Is very vicious, and has occasional fits. After three years' treatment his attention can be engaged for about five minutes. Can say 'mother.' Tries to say 'one' in counting. Is interested while at school, and has become less vicious and noisy. He cannot wash himself, but has learnt to feed himself; is usually clean in his habits. Little progress has been made, and we cannot expect much improvement. The fits which occurred in this case



FIG. 1

often supervene in a patient of the congenital class while under treatment, no doubt owing to the fact that a slight irritation acting on a lowly organised and unstable brain will be sufficient to produce them. The above case and those which follow were under my care at the Darenth Schools for Imbecile Children.

Included under the heading of congenital imbecility are cases of the Mongolian variety, so called from the similarity in their facial characteristics to the Chinese. They are often the last born of a long family, and sometimes have a phthisical family history. The chief signs of this type are shortness of stature, broad features, obliquely placed eyes, rounded pinnæ to the ears, hypertrophied papillæ of the tongue, which presents transverse fissures, roughness of the skin, and hands and feet short and broad. These patients are very imitative, and see the comic side of everything. Their circulation is feeble, and they usually die of pulmonary affections. Many of these cases are caused by trouble, worry, or fright of the mother during pregnancy. These, as well as the one of low type just described, have a fairly sized brain, but one which presents great simplicity of the convolutions. They frequently improve under training.

Case II.

The patient, E. R., aged 11 years on admission, presents the characteristics of this type. Her mother

is a delicate woman, subject to hysterical attacks. The case is said to be due to a fright of the mother when pregnant, bringing on an hysterical fit. She became very spiteful just before the birth of the child. The maternal grandmother died of apoplexy, and there is a history of phthisis on the mother's side. The



FIG. 2

parents are temperate. The child is of a cheerful disposition, but very restless and destructive. She is able to talk a little. On admission she did not know a single letter or colour, and had no knowledge of figures. She made some progress after four years' training, having learnt the alphabet and many words. She can spell several words, has learnt some arithmetic, and knows all the colours and several forms. Can sew a little.

Congenital imbecility includes also microcephalic (small-headed) cases. The smallest head I have ever seen was that of a girl, aged 12 years, whose head measured only twelve inches in circumference, and her brain was found to weigh after death only seven ounces. This girl led a vegetative life, but she learnt to recognise those around her, became cleanly in her habits, and made an attempt at articulation. The term 'microcephalic' is generally applied in this country to heads which measure less than 17 or 18 inches in circumference. At one time it was held that the small size of the brain was owing to the premature synostosis of the cranial sutures compressing and hindering the cerebral growth. It is now known that there is no foundation for this opinion, and consequently craniectomy, which has been performed with the idea of freeing the brain from the compression of the cranium, is not required. In those cases in which the operation was performed very little or no improvement was the result; and, indeed, we

cannot expect much from it, for the microcephalic head is a sign of a vice of nutrition which affects the trophic functions of the whole nervous system. In some cases, too, the brain ceases to grow after the fourth or fifth month, and it is obvious that no operation can alter this condition.

The head in microcephalic cases is oxycephalic (elevated) in shape, and the occiput flattened. The forehead is usually narrow from side to side, and often recedes, but the features are frequently shapely, the eyes large, and the nose aquiline. In some cases they have a bird-like aspect; in others, the face is large in proportion to the cranium. While the lower class of these cases have scarcely any power of observation and will sit in their chairs all day, the higher class are active and lively. They are imitative and restless, fond of music, but have little power of attention. The cerebral convolutions in these cases are usually very simple, and as a consequence of the frequent defect of development in the occipital lobes the cerebellum is left to a great extent uncovered—in fact, it is relatively larger than in the normal brain, being often in the relation one to four, the ordinary normal relation being one to eight.

Case III.

G. L., aged fifteen years, is an illustrative case. His head measures $17\frac{3}{8}$ inches in circumference. He has a somewhat bird-like appearance, and though he has the faculty of observation, imitation, and some power of attention, he has little knowledge. He is lively and good-natured, and laughs when spoken to. His palate is highly arched. He can wash, dress, and feed himself, and plays with the other boys. He was under training for two years, but made scarcely any



FIG. 3

progress; is unable to speak, and can only make ejaculatory sounds; has learnt the manual alphabet, can spell a few words on his fingers, and match a few colours. I learnt from his mother that he had a brother and sister with small heads, and that his father was very intemperate. His sister—who was

also under training in Darenth Schools, although she had a smaller head, measuring only 16½ inches in circumference—made more progress, and of the two had more intelligence, though of course small in amount.

HYDROCEPHALIC CASES

In contradistinction to the class of which we have just been treating are the hydrocephalic cases who have large heads. According to Meynert, in the congenital form the lateral ventricles are extended in their long diameter, while in acquired hydrocephalus the ventricles are increased in their transverse and vertical diameters; the treatment, however, is just the same for both classes of cases. It is only when the disease becomes chronic that education and training can be put into operation; but experience shows that in this condition some cases do improve unless there is a large amount of fluid, causing wasting of the grey matter. All cases of hydrocephalus, of course, do not become imbecile; the presence or absence of this state no doubt depends largely upon whether or not hereditary neurosis plays a part in its production. The hydrocephalic head must not be confounded with the one due to rickets. In the latter case, the fontanelle is depressed, and the head is elongated in the antero-posterior diameter; in the former case the fontanelle is usually raised, and antero-posterior and transverse diameters are nearly the same. The widest circumference is often at the temples, where there is sometimes bulging above the superciliary ridges.

Case IV.

The following case, though hydrocephalic at birth, did not become imbecile until some time afterwards. F. W., aged eighteen years, on admission was found to be a well-nourished boy, with weak circulation, dull and listless. The family history is bad. His father and paternal grandfather died of apoplexy, and two paternal uncles are insane. In addition, all the father's side of the family are excitable, and there is a history of phthisis on the mother's side. When eleven years old, he screamed and became very excitable, but had no fit, according to his mother's account. It is very probable, however, that he had one, from the fact that he afterwards became paralysed on the right side. He remained in this condition for six months, and then gradually recovered. There was no sign of paralysis when he was admitted, though he was weak in both legs. As he grew up, he was noticed to get weaker and become dull. His parents were respectable people, and he had every chance of a

good education, but was unable to learn. When admitted he could only count to six, and though he was at school in the asylum for three years and a half, he only learnt to read and write a few letters, repeat



FIG. 4.

easy multiplication tables, and recognise a few colours. After four years' residence he grew very weak, passed his urine and fæces under him, and gradually died of diarrhoea. He had no fits while in the Darenth Schools, so that his gradual deterioration was probably due to increasing quantity of fluid in the brain pressing on the cerebral tissue. I was unable to obtain a post-mortem examination.

The following case will show what can be done by proper care, education, and training. The patient was of a high type, and suffered only from slight mental enfeeblement.

Case V.

T. B., aged seventeen years, is a fairly nourished boy, of dark complexion, usually of a quiet disposition, but sometimes obstinate and inclined to be combative. On admission, he could read words of one syllable composed of three letters, say easy multiplication tables, and knew all the colours. After three and a half years' training he learnt to read and write fairly,



FIG. 5.

compose a letter, work compound addition, subtraction, and multiplication sums, and acquire the trade of a shoemaker. He was removed from the school after further progress had been made, and passed his whole

time in the shop, where he became an excellent shoemaker. He had a fair knowledge of music, and played in the fife and drum band.

Some of these cases had a vaulted palate, and occasionally a protruding alveolar arch is present. The vaulted palate is seen frequently in cases of imbecility, but as it is also found in persons who are sane, the only inference to be drawn from its presence is, I think, that if we find it in an imbecile child it enables us to say that the case is a congenital one. Other characteristics, present or absent, must of course guide us in giving a prognosis.

(To be continued)

CLINICAL FRAGMENTS (continued)

By FRANCIS HAWKINS, M.B.

Physician to the Royal Berkshire Hospital, Reading, late Physician to the North London Hospital for Consumption and Diseases of the Chest, &c., &c.

Pleurisy with effusions.—I will first narrate the case of a slender, somewhat small-chested female, single, aged 20, whose illness commenced six days previous to admission with pain in the right side, which increased on taking a deep breath. This pain was associated with cough, headache, anorexia, and feverishness. Shortly after admission the patient was lying on her right side, but when I first saw her, *i.e.* the day following, she was sitting up in bed.

There was marked dyspnoea, with cyanosis along the lower margin of the lower lip. The right side of the thorax was quiescent, and somewhat larger than the left. Posteriorly the vocal fremitus was absent and dullness was general. Anteriorly skodaic resonance was absent and dullness was present (in the sitting posture) from the clavicle downwards. The breath sounds were absent posteriorly, ægophony was present below, and in a line with, the lower angle of the scapula. The heart was displaced outwards. The temperature was 101·2. Here, then, we have a case of considerable practical interest, for within *eight* days of the onset of the initial symptom (taking pain as indicating the onset of pleurisy) there was sufficient effusion not only to cause displacement of the heart and the liver, but also to endanger life, as was indicated by the extreme dyspnoea (without exertion) with cyanosis. Now, fluid may be formed with great rapidity, and the greater the rapidity the more severe are the symptoms, because any sudden disturbance of function and displacement of organs cause con-

siderable trouble; but when fluid is effused slowly one is often struck with the slight functional disturbance thus produced. A rapid effusion of fluid within the pleural cavity is not uncommon. Laennec mentions a case giving evidence of considerable effusion within one hour of the symptoms of invasion, and Feltz records a case where 105 ounces had accumulated by the third day. In the case now under review, owing to the state of the patient, the breathlessness without exertion, the early cyanosis, absence of skodaic resonance and presence of dullness from the clavicle downwards, together with the absence of Garland's triangle and the displacement of organs, led me to at once aspirate. Accordingly the area selected—a point in the posterior axillary line, just below the lower angle of the scapula—was first frozen by ice, then a small incision made with a scalpel, and a trochar inserted, when two pints and a half of clear amber-coloured fluid were removed. As a rule, unless signs such as those narrated are present, it is not well to aspirate so early as the eighth day, for in many cases where aspiration is done so early there is a re-accumulation of fluid. In this case such did not occur. The patient made an excellent recovery, the lung re-expanded, the displaced organs returned to their natural positions. The late Dr. Paul Guttman, of Berlin, used always to teach that the pleura was liable to secrete fluid from ten days to three weeks after the onset of the initial inflammation, and hence, unless some absolute necessity arose, it was not well to aspirate until after the latter period of time had elapsed.

Now, as a contrast to the case just cited, mention must be made of the case of a young lady aged twenty-two, who, when seen, complained of languor, headache, and diarrhoea, with severe pain at the epigastrium and over the left iliac fossa. Her previous history was that for more than three months she had complained of hacking cough and lassitude. It had also been noticed that she stooped a good deal. Notwithstanding this she had gone about her daily amusements, dining out, theatres, &c. Now the main symptom complained of was diarrhoea—indeed, the suggestion was made that the case was one of typhoid fever. On examination no abnormal abdominal signs could be discovered, but on examining the chest it was noted that the right side did not expand, and there was dullness on percussion. Fremitus was absent, but *the breath sounds were distinctly heard*, and were tubular in character over the left infra-scapular region. The heart was displaced to the right side. An exploratory puncture was made, and clear

fluid was withdrawn. The following day Mr. Godlee kindly aspirated, when five pints of clear fluid, which quickly coagulated, were withdrawn. Recovery was protracted, but subsequently the lung re-expanded, and the patient became quite well, with this exception, that the note over the left infrascapular region was always impaired. This occurred two years ago. The patient is now quite well, and has had no further trouble with her chest.

The case is of great interest from two points of view: firstly, in marked contrast with the former case, where pain was the initial symptom, with rapid effusion producing considerable disturbance, while in the latter case there was no initial symptom, *no evidence whatever of the onset of pleurisy*; and secondly, the symptoms of illness named by the patient were not symptoms pointing to any chest complaint, but rather to abdominal trouble.

Such instances are by no means uncommon. The slight suffering that may be experienced by patients who have an extensive effusion is really very remarkable. Many can give no history of the primary attack of pleurisy, and will often consult you for causes other than those produced by the effusion, or it may be dyspnoea, an inability to walk as in former times owing to breathlessness. Others will have observed that the heart beats on the wrong side, or they have an idea that they suffer from heart disease. Many of these cases to an unobservant eye will appear quite well. They may look well, be free from pain, fever, or any local distress, but in many instances there is an anxious expression about the eyes, reminding one almost of the look of a pneumonic case. A knowledge of these facts shows the great importance of physical signs; and in examining most cases observation will at once show that the thoracic walls move unequally; the movement on one side will be 'good' or exaggerated, while the other side is quiescent; and, further, there is oftentimes bulging of the affected side, with greater width between the interspaces. Then the absence of vocal fremitus gives valuable evidence. The percussion note will obviously be dull.

We now come to the second point of interest in the case, for usually in pleuritic effusions in the adult the breath sounds are very indistinct or entirely absent, but in this case they were distinctly heard, and resembled those met with in pneumonia. In the latter disease the tubular breathing is due to the solidification of the lung, preventing air entering the vesicles, while in pleurisy it is produced by the mechanical condensation of pulmonary tissue, and

hence tubular or bronchial breathing may be present when there is large effusion into the pleural cavity. In passing it may be mentioned that in children when there is such effusion it is the rule for the breath sounds to be of bronchial character. There are other points of interest in the diagnosis—I mean displacement of organs. The heart becomes displaced from the side on which the effusion occurs, and is more so when the effusion is on the left side. Wilson Fox states that in cases when the descent of the diaphragm is prevented the heart is raised in addition to being pushed over. The apex may then pulsate in the third right interspace. Stokes says the heart becomes displaced from the earliest period, and long before any protrusion of the intercostals or diaphragm. From the position of the liver it is obviously displaced only in cases of effusion on the right side. The spleen is, I believe, very rarely displaced to any great extent. Trousseau, however, mentions the case of a left-sided effusion and displacement into the left iliac fossa.

One word in reference to the prognosis. Death from simple pleuritic effusion is not common, yet it may occur. I have seen one case where sudden death occurred before any examination and consequent diagnosis could be made. At the autopsy the right pleural cavity was full of clear fluid, the lung quite compressed, the heart and liver both displaced.

THE TREATMENT OF SARCOMA BY THE TOXINES OF ERYSIPELAS AND THE BACILLUS PRODIGIOSUS¹

By STEPHEN PAGET, F.R.C.S.

Surgeon and Surgeon to Aural Department, West London Hospital,
Surgeon and Surgeon to Throat and Ear Department, Metropolitan Hospital.

Dr. Coley, surgeon to the New York Cancer Hospital, has published two very remarkable papers on 'The Treatment of Inoperable Malignant Tumours with the Toxines of Erysipelas and the Bacillus Prodigiosus.' The object of this article is to give a brief account of his work and its results.

The incredulity which is naturally aroused by the novel character of his methods may be excused, but many of his published cases seem beyond the reach of uncertainty. The history, aspect, and microscopic structure of the growths left no room for doubt that they were true sarcomata; nor can we doubt that they were removed by the means he describes, unless

¹ See *Trans. Amer. Sur. Assoc.* 1894, and *New York Med. Record*.

we are prepared to put aside a great mass of the evidence he brings forward.

His first paper deals with 36 cases; of these twenty-five were sarcoma, eight were carcinoma, three were of doubtful structure. His second paper deals with eight cases of sarcoma.

The carcinomata need not be considered. The treatment either failed altogether, or only brought about slight temporary arrest of the disease, such as might be gained by the injection of acetic or carbolic acid, or methyl violet.

As regards the sarcomata, the following cases can hardly be ignored, save by the abuse of our own powers of judgment.

(1) Mrs. X., 29. Large tumour of abdominal wall. On August 31, 1892, abdominal section. 'The tumour was found to involve such a large portion of the abdominal wall that it was regarded as inoperable. A small piece was removed for the microscope, and was pronounced to be sarcoma. Injections of the toxines of erysipelas and of bacillus prodigiosus were begun early in October. On April 3, 1894, she was carefully examined, and we were unable to find any trace whatever of the tumour.' In July she was still in perfect health.

(2) F., aged 16. Large, hard, fixed mass, of very rapid growth, extending from the clavicle to the lowest rib, and from the back to the middle line in front. Microscopical examination showed that the disease was 'spindle-celled sarcoma.' Under injection of the mixed toxines she rapidly improved. At the end of four months 'no trace of the tumour could be found either in front or behind.' All the injections were made into one part of the growth, about four inches in breadth. The growth disappeared wholly by absorption, none of it sloughed.

(3) M., aged 16. Large inoperable sarcoma (verified by microscopical examination of a small piece removed for that purpose) of the abdomen and pelvis, seven inches transverse diameter, five inches vertical. 'It extended nearly to the umbilicus above, and was deeply attached to the pelvis below.' Injections were begun in February 1893. In June the tumour was only two inches in diameter; in August it had 'almost disappeared,' and some months later its growth was still arrested.

(4) M., 23. Osteo-chondro-sarcoma of right ilium, as large as a child's head, with enlarged glands. Injections were begun in March 1894. The growth quickly

began to break down; it was freely incised and drained, and large masses of it sloughed. In September there was 'no trace of the tumour'; there were sinuses, but they did not lead down to bare bone; the glands were smaller. In December a portion of the thickened ilium was removed for microscopic examination, but it was not found to contain any sarcomatous growth.

I have chosen four of Dr. Coley's best cases; for with a disease so desperate as sarcoma when it is beyond operation, and with a method of treatment so new and strange, we have a right to look away from the failures, and fix our attention on the successes. Other surgeons, notably Kean of Philadelphia, have found the treatment fail again and again, and have nothing to say for it. It seems certain that it is useless against carcinoma. But as regards sarcoma, every surgeon must have had or heard of one or more cases where strange diminution or even disappearance of a tumour which seemed beyond all doubt sarcomatous has occurred. In one or two cases the administration of liquor potassæ has been followed by good results; in others an incomplete operation, or an attack of erysipelas, has been the cause of the sudden change.

These inexplicable cases must be kept in mind; for we have to deal with a mortal disease past all ordinary methods of treatment, and we are bound to make trial of methods which may seem at first sight extravagant.

Dr. Coley's treatment began from observation of the old fact that an accidental attack of erysipelas may arrest or diminish a malignant growth. Starting from this fact, he used the old method of inoculating the growth with erysipelas; but this treatment gave him as little encouragement as it has given to those German surgeons who lately revived it. He then used bouillon cultures of erysipelas. Then he went on to filter off the organisms, and use only their products. Next, taking account of Rogers's observation that the bacillus prodigiosus has the effect of intensifying the virulence of the erysipelas streptococcus, he used a mixture of the products of both these organisms. Finally, he found that the best results were obtained by growing the organisms together, and either using a filtrate thus obtained or sterilising the broth by heat. 'I have recently been using cultures prepared by Dr. Lambert as follows: Bacillus prodigiosus is grown in streptococcus broth, to which a very little cacao has been added, for four weeks or more, and then the broth is heated

for one hour to 58° C. The fluid is then used without filtration. This is by far the strongest preparation I have been able to obtain. . . . Cultures obtained from any but a virulent case of erysipelas are of little value; all of my cases were treated with toxines made from cultures from a fatal case of erysipelas. . . . The toxines, to be of value, should be freshly prepared. . . . I have found osteo-sarcoma the least susceptible. . . . We have twenty-five cases of sarcoma, eight of carcinoma, and three either sarcoma or carcinoma; if we include my first case, treated by fluid living cultures of erysipelas alone, we have five cases in which it is not unreasonable to hope for a permanent cure. Nine others showed marked improvement, eight slight temporary improvement.'

It is evident that Dr. Coley's method is destined to be altered again and again for further improvement. It may be found that some wholly different toxine or mixture of toxines may give yet better results. It is possible that his method might be effectual in cases of cheloid. His work is still in its earliest stage. But now that the fluid may be procured from him, and also is being prepared in London, we are bound at least to make patient trial of it, considering how utterly helpless we are in the presence of these most terrible cases.

Public Health

Mistaken diagnosis.—During 1894 864 patients not suffering from the diseases certified were admitted into the Asylum Board Hospitals, or a little over five per cent. of the total admissions.

The largest proportional number of cases of error is in the case of small-pox. Out of 1,263 cases, 155, or 12·2 per cent., were found not to be suffering from small-pox.

It is obvious that, from a public health point of view, isolation, to be of value, should be prompt; but in very few of the infectious maladies can a correct diagnosis be made immediately the medical attendant has seen the patient. In most cases there is a period of suspicion, and it is only when some decided eruption or marked febrile phenomenon manifests itself that a definite opinion can be given. In not a few cases the diagnosis is doubtful for many days. Therefore, knowing the grave difficulties of diagnosis, the errors are not numerous. Nevertheless there is little doubt

that the fear of making a mistake operates injuriously, and many patients who ought to be removed are kept in their crowded rooms, to the danger of the public, for a longer period than they ought to be. It would be a vast improvement in our sanitary organisation if a quarantine hospital were established into which all cases of doubtful diagnosis could be sent. If this were done the form of certificate would be to the effect that So-and-so 'was *probably* suffering from —'. The patient then would at once be removed from unhealthy influences, and the spread of infection stayed far more effectually than under the present system.

The housing of the cottar and labourer in Argyll.—Dr. Roger McNeill, the County Medical Officer of Health for Argyll, in his recent annual report, calls attention to the housing of the cottars and labourers in that district, and suggests remedies. With walls facing the south or west there is a great difficulty in making the houses impermeable to driving rain. The best way is to build hollow walls. This is easily done if the walls are made of brick, but brick is not easily obtained in Argyll. Hollow stone walls are more expensive, but if they are plastered with hydraulic lime instead of lath and plaster the omission of the lathing saves some money, and then the difference in the expense is not so great. Dr. McNeill gives plans of low one-story cottages, costing from 95*l.* to 105*l.* to build. Each of these cottages contains three good rooms, and could be let from 4*l.* to 5*l.* per annum, or say from 1*s.* 6*d.* to 2*s.* per week. This sort of accommodation would at least be superior to that which now exists. Houses are described consisting of one or two apartments, damp, badly drained, roofed with rotting thatch, dimly lit with small windows, and without ventilation.

The report of the Statistical Committee of the Asylums Board.—There are certainly no more valuable reports than those of the Statistical Committee of the Asylums Board, and the present one, with its spot maps, tables, and curves of sickness and mortality, is in every way worthy of those which have preceded it. Special attention may be directed to the tables giving the case mortality of the various fevers treated. These tables summarise the experience from 1871 to 1894, and by their aid it will be possible to compare the mortality of other hospitals in which similar diseases are treated. As an example: during the period named 81,350 cases of scarlet fever produced 6,490 deaths, equal to a crude mortality of 8 per cent., but if the

cases are further analysed it is shown that the mortality of children under five years of age attains 17·6 per cent., the males dying at the rate of 18·1 per cent., the females at the rate of 17 per cent. Still more minute analysis shows, as always happens, that the younger the child the more fatal is scarlet fever, babies under one year dying at the rate of 29·6 per cent. It is still necessary to remark that before the administration of an isolation hospital is attacked on account of its high mortality, an inquiry should be made as to the age and sex distribution, for it may be that a mortality of, say, 7 per cent. is not a low, and that a mortality of 12 per cent. is not a high, mortality—the main factor being the relative proportion of very young children.

Filtration of sea water through wood.—In 1894 J. Pfitzer made the observation that it was possible to obtain a filtrate from sea water almost salt free. In one of his experiments he forced sea water through a section of a recently felled pine tree, the section being 4·5 metres long and 12 to 16 cm. in diameter. Ten litres of the filtered water were practically free from salt; the first glass tasted woody, but afterwards the taste was similar to spring water.

Wilm¹ has submitted this process to an exhaustive research, and finds that, by forcing sea water through a sufficiently long stem, the first few litres of water contain only half or a third of the original salt; if, however, filtration is continued, ultimately the filtrate has an equal content of salt to the original unfiltered water. It is, therefore, not probable that this interesting method can receive practical application.

Duration of infection in scarlet fever.—A committee of the Asylums Board are now engaged in collecting information as to apparent infection from cases which have been treated in the Asylum hospitals, and have been returned home after complete desquamation, and apparently in perfect health. There are grounds for suspecting that desquamation has little to do with the infection, that when desquamation has entirely ceased a patient may yet be infectious, and, conversely, a patient still feebly desquamating may not be able to communicate the disease. Some of the cases in which it is alleged infection has still remained have been kept more than three months in hospital. It would be of great practical utility if it were possible to obtain by bacteriological investigation some definite information or sign as to when infection ceases.

Diarrhoea and improper food storage.—Dr. Cooper

¹ *Hygienische Rundschau*, V. Jahr. No. 10.

Pattin has made a careful special report on diarrhoea in Norwich during the autumn of 1894. In 91 per cent. of the households invaded, the food was stored in some unventilated receptacle in the living room, commonly a cupboard, or on shelves under the stairs.

It is pretty generally recognised that the production of summer diarrhoea in the majority of cases is due to some morbid agent 'swallowed' rather than breathed. Hence, in all sanitary inspections the position of the food store or pantry should be carefully examined. A food store exposed to sewer gas emanations, to dust, or to special dampness may be reasonably considered a nuisance under the Sanitary Acts.

The prevention of the spread of glanders.—A circular letter from the London Master Carmen and Cartage Contractors Association has been sent the round of the local authorities, requesting that all public drinking troughs under their control may be closed, in order to prevent the spread of glanders.

There can be no doubt that a glandered horse with any nasal discharge is likely to spread the malady by the pollution of the water in a trough; but that this is the main factor of spread is open to doubt. Since the discovery of *mallein* and its practical application, glanders has certainly decreased.

The General Omnibus Company own about 11,000 horses, and in 1893 they lost 269 horses from glanders. During the six months ending May 21 they have only lost 35, and this great diminution is ascribed to the use of *mallein*. Directly a horse is found to be glandered the whole of the horses in that particular stable are tested with *mallein*, and those that show a rise of temperature immediately separated. It appears to the writer that what is more urgently wanted than shutting up water troughs is a compulsory notification of glanders by the veterinary surgeons. As it is at present, no veterinary surgeon is compelled to report glanders, and it is said to be a common practice, if a horse is suspected to be in the incipient stage of the disease, to fatten him up by a liberal allowance of food and then to send him to a public sale yard. The notification of glanders has been several times pressed upon the Government, but hitherto without effect.

THE ANNUAL ORATION DELIVERED BEFORE THE MEDICAL SOCIETY OF LONDON ON MAY 20, 1895

THE title given by Mr. Pearce Gould to his oration was 'The Recent Evolution of Surgery.' He referred

to the great change that had come over surgery in the removal of the formerly admitted anatomical restrictions upon surgical operations, as being due not to any increase of boldness upon the part of the surgeon, but to improvements in methods of surgery which enabled him to carry out these operations more safely.

The modern surgeon may be more precise in his anatomical knowledge, and is possessed of operative aids unknown to a former generation, but these had a small influence. Thirty years ago the body was mapped out into an operable area and an inoperable area, the distinction being based upon anatomical differences; but when surgeons understood the process of healing of uninfected wounds, such an anatomical classification of parts became meaningless, and a great barrier to the progress of surgery was at once removed.

The next point which Mr. Gould referred to was the higher regard in which the physiological integrity of the organism is now held.

His third point was that there is a new conception of the real nature of a surgical operation and of the personal responsibility of the operator. In the present day the terms 'brilliant' and 'lucky' were not applicable to the surgeon, nor did the latter blame the Deity when things went wrong, as used to be the case in olden days. Instead of brilliancy in execution we demand success, and instead of speaking of 'luck' we talk of 'surgical responsibility.' Operations may even now fail, but when they do we rather blame ourselves than any supernatural power.

The fourth division of this oration was that Surgery has apprehended that its highest ideal is to treat directly the causes of disease. After dilating upon this point, Mr. Gould referred to tuberculous disease of the lymphatic glands and the old practice of doing nothing better than opening an abscess. To-day such a procedure is never adopted, except as a temporising expedient or preliminary operation. But the existence of the disease being once established the surgeon directs all his efforts to one single end—the removal of the effete products of the disease, and also the active cause of the disease itself, the tubercle bacilli.

The lecturer further referred to physiological operations in surgery, meaning the operations on a part not itself the seat of disease, nor the cause of existing disease, but a part, by operating on which we can effect beneficially the morbid change somewhere else; such, for instance, as the removal of the healthy ovaries in the treatment of uterine fibroma, and of the healthy testicles in cases of advanced prostatic disease.

He did not discuss the value of these operations, but only referred to them as instances of the evolution of surgery.

Sir George Buchanan, M.D., F.R.S.

LATE PRINCIPAL MEDICAL OFFICER TO THE LOCAL
GOVERNMENT BOARD

SIR GEORGE BUCHANAN died on May 5 at the age of 64. He commenced public life as Medical Officer of Health to St. Giles district, and soon attained to notoriety by his labours in sanitary science. His statistics regarding the results of overcrowding of houses were most elaborate and convincing, and his work in respect to the prevention of small-pox and cholera, and various other matters, soon brought him to the notice of the State, and he was elected to the Medical Department of the Privy Council in 1861.

At the time of the cotton famine in 1862, his services were of the utmost benefit in inquiring into the epidemic of typhus. His work upon sewerage and water supply, and especially as regards dampness as a cause of phthisis, made a great impression upon the medical profession and the public.

As Principal Medical Officer to the Local Government Board he showed his great capacity as an administrator, and also as a scientific investigator. The seventeen volumes of reports which were issued from his department during the time he was at its head show the ability and thoroughness of this hardworking man. There is no subject with regard to sanitary science which Sir George Buchanan has not dealt with in a masterly manner, and when he retired in 1892 and received the honour of knighthood it was felt that though he well deserved such an expression of gratitude in estimation of his work, yet his loss in the office which he had so long filled was one which it was difficult to replace. The medical profession did well when they were the means of founding the Gold Medal to be given triennially by the Royal Society for distinguished services in sanitary science, and made Dr. Buchanan its first recipient.

One of the latest positions which Sir George held was that of chairman of the Tuberculosis Commission. For such a position his qualities peculiarly fitted him, not only on account of his scientific attainments and

skill, but also by virtue of his charming manner and kindly bearing to all around him.

Sir George Buchanan was well known also for the work he had done at the London Fever Hospital and the Hospital for Sick Children in Great Ormonde Street.

Arthur E. Durham, F.R.C.S. Eng.

CONSULTING SURGEON TO GUY'S HOSPITAL



Of the many members of our profession who have 'passed away' during recent months, not one is more regretted than Arthur Durham—congenial, kind-hearted, and beloved of all; assiduous in his work, ever ready to give a helping hand to others, and enthusi-

astic in everything he undertook.

A most rapid attack of acute pneumonia was the cause of death. On Sunday, May 5, he was out of doors and practically well, was attacked with rigors soon after his dinner the next day, developed pneumonia, and, notwithstanding the most assiduous attention of his colleagues and friends, Dr. Pye Smith and Mr. Tom Bird, and afterwards Drs. Wilks and Pavy, Sir William Broadbent, and Mr. John Croft, he died shortly after midnight on Tuesday morning.

Arthur Durham was born in 1834 in Northumberland, became a student at Guy's Hospital in 1855, and passed all his examinations with honour and credit. In 1862 he was elected Assistant Surgeon to the Hospital, and Surgeon in 1873. The latter position he held until last year, when he was made Consulting Surgeon. He was also Consulting Surgeon to the Royal Hospital for Women and Children, Waterloo Road, as well as to the Stockwell Orphanage and to the Stockwell Dispensary.

Durham was a general favourite in society as well as with his patients. Thoroughness, carefulness, natural ability, and good judgment made him an excellent surgeon, not only in theory but in practice.

He filled the offices of President and Vice-President of various medical societies, was a member of the

Council of the Royal College of Surgeons, and had been President of the Metropolitan Counties branch of the British Medical Association. In all these capacities he made an agreeable colleague, and was an astute man of business.

His literary works are abundant. They appear in the Guy's 'Hospital Reports,' in Holmes's 'System of Surgery,' in Quain's 'Dictionary of Medicine,' and in the transactions of various societies.

Diseases of the nose and larynx, intestinal obstruction, sleeping and dreaming, displacement of the kidneys, aneurism, and bone diseases are among the subjects which he wrote upon.

It may fairly be said that he was one of the most popular surgeons of the day, and great is the regret of those intending to be present at this year's meeting of the British Medical Association, not only that they will miss the company of Arthur Durham, but will also lose the pleasure of hearing him deliver the address on surgery.

Epitomised Lectures and Papers

LECTURES UPON THE TESTES

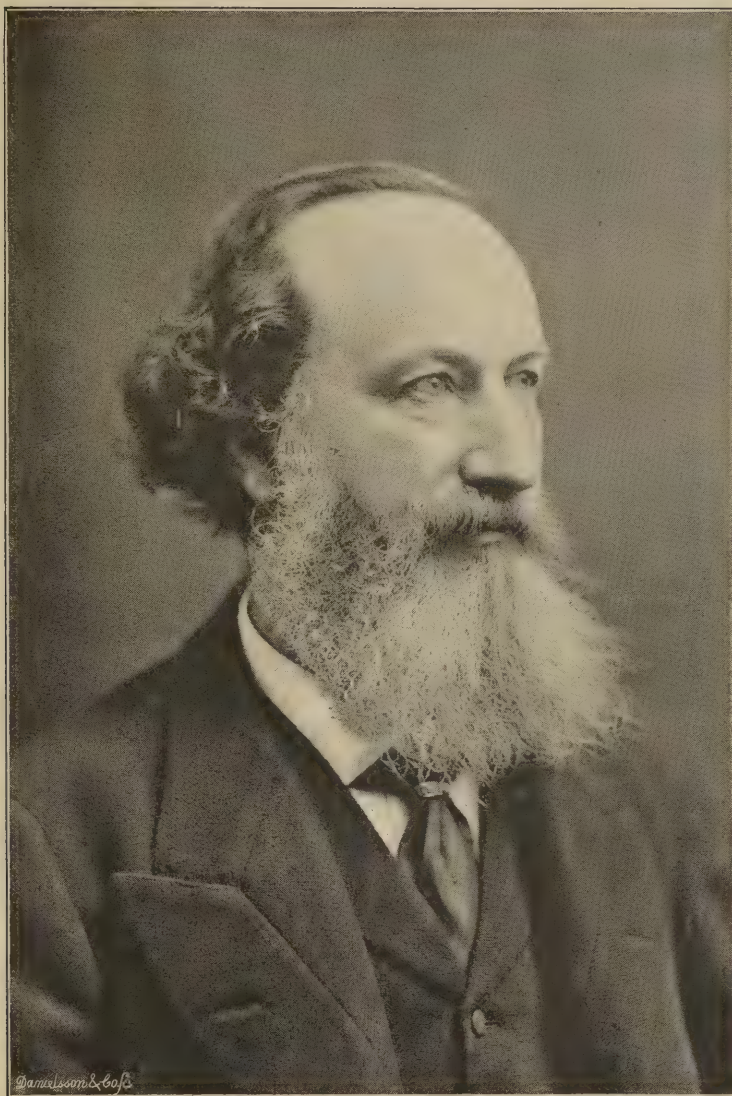
*Delivered before the Royal College of Surgeons of England,
March 25, 27, and 29, 1895.*

By JOSEPH GRIFFITHS, M.A. CANTAB., M.D. EDIN.,
F.R.C.S. ENG.

Assistant to the Professor of Surgery in the University of Cambridge; Hunterian Professor of Surgery and Pathology at the Royal College of Surgeons of England; Assistant Surgeon to Addenbrooke's Hospital, Cambridge.

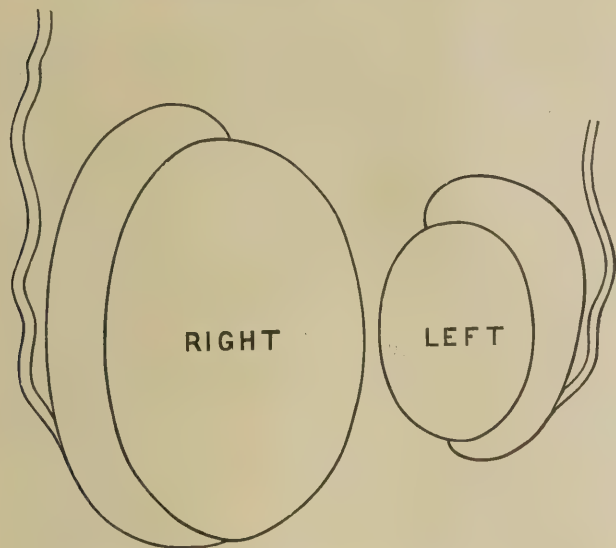
Asymmetry of testes.—*In describing the structure of the testis* Mr. Griffiths referred to the fact that in the adult there is usually a certain degree of asymmetry between the right and left testis, as a rule very slight, but sometimes existing to a considerable extent, as, for instance, in a specimen in the Cambridge Pathological Museum. This specimen was taken post mortem from a man aged 44. The left testis, the smaller, measured only 30 mm. (about $1\frac{1}{8}$ in.) in length, by 20 mm. in breadth, whereas the right measured 50 mm. in length by 35 mm. in breadth.

'The epididymis was relatively larger to the body of the testis in the left, or smaller than in the right. Each organ was natural in form and in structure, and in each the formation of the spermatozoa was going on at the time of death.'



Arthur E. Durham

Here the right testis was overgrown and the left stunted, but both natural in structure.



ASYMMETRICAL TESTES IN A MAN AGED FORTY-FOUR YEARS

Practical deduction.—The possibility of such a condition of asymmetry is obviously an important fact to keep in mind when forming an opinion as regards morbid changes.

Age of cessation of virility.—‘The time at which the testes cease to produce their special secretion—the spermatozoa—and the person loses his reproductive powers varies within a wide range. In some men between the ages of seventy and eighty years the seminal tubules may be found active—that is, showing spermatozoa and the different stages requisite for their production; and it is known that men about or over eighty years of age may beget children. Some men suffer from spermatoceles at an advanced age, in whom the production of spermatozoa must be still going on, for in the fluid removed from such spermatoceles during life there are usually numerous active and vigorous sperm cells lashing their tails and moving swiftly from place to place. On the other hand, the testes may, independently of disease, cease to produce spermatozoa at as early an age as fifty, and may undergo at that time the structural changes which I have elsewhere more fully described as characteristic of the natural involution of this organ.’¹

The effect of celibacy upon the testes.—‘The effect of long celibacy upon the spermatozoa-producing power of the testis is one of considerable interest, and

one upon which the medical man is not infrequently consulted. Under these circumstances the organs are usually smaller and softer than they are in a married man of the same age; and it would appear that the sexual desire is under such circumstances commonly in abeyance. So far as I am aware, it has never been determined microscopically to what extent, if any, the structure of the seminal tubules suffers from long celibacy. The bodies of the testes commonly become reduced in size, soft, and flabby, yet we know that under the natural stimulus they in a comparatively short period of time regain their full size and full function, with the production of spermatozoa. It may, therefore, be assumed that atrophy does not occur, but merely that the organ becomes slightly reduced in size, the capability of the seminal cells of the tubules of the testis to multiply and to produce spermatozoa merely remaining in abeyance until the sexual feelings are aroused and the sexual glands thereby stimulated.’

Mr. Griffiths next discussed

The influence the testicles exert upon the growth and development of the accessory sexual glands.—This subject has a special importance just now with reference to the question of castration in cases of enlarged prostate, an operation which we referred to in February as being still in its experimental stage.

Mr. Griffiths reported a case in the ‘British Medical Journal’ of March 9, describing the early changes in the enlarged prostate after castration.

He considers that the removal of the testes in old men, whether the glands be at the time of their removal actively engaged in the production of spermatozoa, or in a stage of involution, produces atrophic changes in the prostate.

‘The influence the testes exercise upon the accessory sexual glands (the prostate, vesiculæ seminales, and Cowper’s glands) may be inferred from those cases in which the testes (both) were removed in early life. There are many of the domesticated animals in which this operation is performed with commercial advantage, and in some countries the same is done in man in order to produce the eunuch; indeed, among a certain sect of people in South-east Russia removal of the testes late or early in life is a practice religiously observed and enforced. The prostate gland is essentially glandular in structure, and the muscular tissue which is abundant in it is apparently for the purpose of expelling the secretion from the tubules into the ducts, and so into the prostatic dilatation of the urethra. In the full-grown

¹ *Journal of Anatomy and Physiology*, vol. xxvii. p. 474.

eunuch the prostate gland is small, atrophied, and fibrous. The glandular tubules, having never fully developed, are represented only by branching fissures, which are obviously the representatives of the ducts, and are lined by a single layer of flattened cells. The intervening or intertubular connective tissue is relatively increased in amount, and consists almost entirely of fibrous connective tissue, with hardly any of those unstriped muscular fibres which are so abundant and form so large a proportion of the intertubular connective tissue in the normal, fully developed gland.¹ The vesiculæ seminales are small, and their saccules are devoid of secretion. Cowper's glands are small, fibrous, and in much the same state as the prostate gland. The penis is small, and the sheet of striped muscle around the intrapelvic part of the genital portion of the urethra (including the external sphincter of Henle and the constrictor urethræ) is small, pale, and fibrous, instead of being thick, well-formed, reddish-striped muscle. The special muscles of the penis, and with them the accelerator urinæ, are also small and ill developed. The same influence is exerted by the absence of testes in other animals—*e.g.* in the dog, in the cat, in the horse, in the bullock, and in the boar. In the boar the prostatic and Cowperian glands, together with the striped muscle of the urethra, are so pronounced in the entire male, and so diminutive in the castrated pig, that the contrast between them is very striking. In the entire animal, indeed, these glands are so prominent, and in the natural state so enormously developed, that they deserve special notice.

'The influence the testes exert upon the growth and development of the body and the mind.—If a boy when young be castrated, the developmental changes that go on to form the characteristic features of man do not take place, and, as he is sexless, characters that are more or less intermediate between those of man and those of woman develop; indeed, such a person, commonly known as a eunuch, acquires characters that are more akin to those of the female than those of the male. The female likewise, we know, when deprived of ovaries, acquires some of the characteristics of the male. John Hunter noticed the development in the hen pheasant of fine and brilliant plumes after disease involving and destroying both ovaries. The eunuch is usually large, fat, and flabby, with scanty hair on the face. His pelvis is broader, and his shoulders are narrower, than those of the entire man; his features simulate those of the female, but

are not so well cut or so delicately shaped, being, like the rest of the frame, coarser. His voice remains like that of a boy. . . . Eunuchs are in great requisition in the choirs of some churches for their voices, which combine the sweetness of the soprano and the richness of the tenor notes. Precisely the same changes take place during puberty in persons in whom the testes are diminutive and their special structure is wanting. Such persons I have termed "eunuchoid," because they resemble eunuchs in all particulars save and except that the testes have not been removed, but remain in a diminutive or abortive condition.

'The effect of the removal of the testes in early life upon the development of the mind at puberty is a subject which is scarcely ripe for solution. What is written about eunuchs is unreliable, chiefly because they as a class have always been despised by men, and whatever has been said of them has been too highly coloured by prejudice. Many of them have attained to high rank and position, and have shown great capacity for transacting business of all kinds. One of their number, Narses, was among the first generals of the Roman empire. He not only possessed great power over his soldiers, and was the foremost in the practice of war tactics, but was also highly esteemed and respectfully feared by them. Another celebrated eunuch was Eusebius.'

'The effect of removal of the testes in men and in fully grown animals.—Removal of the testes in an adult and in fully grown animals produces in a comparatively short time (within three months) atrophic changes in the accessory sexual glands—the prostate, vesiculæ seminales, and Cowper's glands. These parts after a time acquire a structure that is similar in all respects to the structure of the same parts in a eunuch or in a eunuchoid person. In the latter the condition arises from arrested growth and development, whereas in the adult deprived of the testes it arises from atrophy and disappearance of existing structures. The result is the same in each, but the process differs. In adults deprived of their testes the body will have acquired the male characteristics, and in consequence the permanent skeletal parts will be but slightly, if at all, modified. Such persons, however, usually put on fat, and get, in fact, into better condition. They often, also, become placid and content, though in some cases, as in the young man whose testes were removed by Sir Astley Cooper, extreme misery may ensue.'

¹ The lecturer then described the structure of these glands.

In the second lecture (March 27) Mr. Griffiths

commenced by dealing with the subject of **Retained testes**. He first referred to the fact that whereas in some animals (the elephant, for instance) the testes remain naturally in the abdominal cavity, in others they descend only as far as the groin, yet in the majority they come into the dependent scrotum. In rutting animals (the hedgehog, for example) the testes descend to the groin during the rutting season, and are withdrawn into the abdominal cavity at other times.

In the human being (and in other animals in which the scrotum properly contains the testes) we find occasionally congenital deficiency as regards descent of the organs.

Usual position of undescended testes.—The undescended testis is usually found at the external abdominal ring; it may pass into the perineum, thus missing the scrotum; rarely into the upper and front part of the thigh; or into the cavity of the pelvis.

‘When one testis only remains undescended—whether the organ be in the abdominal cavity, at the internal abdominal ring, or in the groin, the other being in its natural position and well developed—the case is of interest chiefly owing to the concurrence of congenital hernia in connection with the undescended testis and the difficulty of successfully applying an apparatus for the proper closure of the canal and the prevention of the escape of intestine. If, however, the surgeon finds it impossible to adapt a well-fitting and comfortable truss, then the question of operative measures may arise, and naturally the exact structure of the testis, its capabilities of producing spermatozoa, and the influence it may exercise upon the man become of importance. Especially is this the case in those instances, which are not very rare, of incomplete descent of the testes on both sides. When the testes are duly transmitted they acquire, as is well known, their full size and full function; but when they fail to reach their destination they do not attain either their full size or their full function—the production of spermatozoa. This may appear strange, seeing that the testes do in some animals attain their full size and full function when retained in the abdomen or in the groin. It is, however, the fact that, in any given animal in which complete “descent” of the testis normally takes place, the testis, in order to attain its full size and full function, must reach and occupy the terminal part of that destined course. In man, for example, unless the process of descent be fully accomplished, the testes attain neither their full size nor their full functional powers. I am aware that this

has been doubted, but my own observations quite confirm the view. Further, I have shown in a paper entitled “The Structural Changes in the Testicle of the Dog when it is replaced within the Abdominal Cavity” that when the testis in the dog is by experiment replaced within the abdominal cavity it soon dwindles and loses its spermatozoa-producing powers, undergoing at the same time certain definite retrogressive changes in the structure of its seminal tubules.’

The lecturer then described a case of undescended testis in an adult, the specimen being in the Pathological Museum of the University of Cambridge. Microscopical examination had shown spermatozoa to be present in the descended testis but not in the other.

‘**The effect of the undescended testes upon the growth and development of the body.**—It is of much interest to find that the undescended testes, though incapable of producing their special secretion of spermatozoa, yet are capable of exerting their peculiar and important influence upon the growth and development of the body. When only one testis fails to “descend” to the termination of its destined course, the opposite organ having duly reached the scrotum, the person grows, as we often have the opportunity of observing, just as if both organs were in their natural position. The fully descended testicle produces spermatozoa in abundance and usually acquires a larger size than natural, due to what is called ‘compensatory hypertrophy.’ Thus, a person who has one testis natural and in the scrotum, whether the opposite be undescended or absent, is in possession of full virility. But when both testes fail in their descent they, as we have just seen, are incapable of producing spermatozoa, and in consequence the person is sterile. In spite, however, of the imperfection of the organs, such a person acquires all the external bodily characteristics of the male, and is in all respects, except in the power of procreating, like an ordinary man. His shoulders are broad, his pelvis is narrow, his beard and moustache and hair on the pubes are well grown, his voice is deep and manly, and his penis is large and well developed, though the scrotum is small and empty; so that the external appearance, except that of the scrotum, would give no clue to the condition. I know of one such person who is well formed, and who is capable of erection and emission, but without issue. It is evident, therefore, that the influence of the testes upon the growth and maintenance of the characteristics of the male is a property independent of their power of producing spermatozoa; and the

remarkable fact is established that the spermatozoa-producing work of the testes, possibly even their potentiality for that purpose, is not necessary for the establishment of the influence which those organs exert upon the rest of the body. It is further of interest that, although the natural involution of the testes in the aged is unaccompanied by any corresponding change in the system, yet if the testes in an elderly person are removed the accessory sexual glands, at any rate, are found to undergo changes somewhat similar to those which are observed in eunuchs and in eunuchoid persons.¹

Mr. Griffiths concluded his second lecture by referring to the possible effect of the internal administration of extracts of testes, comparing it to the effect of extract of thyroid gland upon cases of myxœdema, stating :

'The disease myxœdema arises from the want of the influence of some unknown substance, which the thyroid gland, as is supposed, elaborates, upon the nutrition centres of the central nervous system. It may be that the testis in like manner elaborates, irrespectively of its spermatric secretion, some chemical substance which by a similar influence not only controls the growth and development of the body at puberty, but maintains the manly characters then acquired throughout life.'

We have given above what we think to be the more practically useful points of these very interesting lectures, and would refer the reader who wishes to see a full report to the 'Lancet' for March 30.

A FATAL CASE OF TRAUMATIC ANEURISM OF ABERRANT RIGHT SUBCLAVIAN ARTERY¹

By R. J. PYE-SMITH, F.R.C.S.

Senior Surgeon to the Sheffield Public Hospital and Dispensary.

Benjamin A., aged 30, a joiner, was admitted into the Sheffield Public Hospital and Dispensary on November 5, 1894, having fallen on to his back from a height of about twenty-eight feet. In falling, his chest struck against a projecting piece of scaffolding.

On admission, he was somewhat collapsed and appeared to be seriously injured. He lay on his back, but required to have his shoulders raised, as his

breathing was laboured. He had cough, accompanied with sharp cutting pain in the upper part of his chest and through to his back, about the third dorsal vertebra. Deglutition was also accompanied by sharp pain.

On examination no fracture, wound, nor bruise was discovered. There was no irregularity of the spine and no paralysis. There was tenderness over the second left intercostal space near the sternum and over the ninth space in the anterior axillary line on the same side. On auscultation, it was found that on the left side of the chest breath sounds were almost entirely absent, no air seeming to enter on inspiration except to a very slight extent posteriorly. On the right side, breath and voice sounds were exaggerated and accompanied with râles, and there was a pleuritic rub near the angle of the scapula. He expectorated a little bright frothy blood. The heart sounds were normal. The abdomen appeared to be normal. The urine was free from blood. Pulse 112, respiration 48, temperature 97·8°.

The diagnosis was not clear, but we thought the left bronchus must be in some way occluded, and, as he had no artificial teeth, pipe, or other substance in his mouth at the time of the accident which could have been swallowed or inhaled, we concluded that it was probably blocked by blood, though pressure from a hæmatoma was also suggested. An eighth of a grain of morphia was administered hypodermically, and liquid diet ordered.

For two or three days his condition gradually improved. Both pulse and respiration became less frequent, and temperature was normal. By November 8 his pain had subsided, and the morphia was discontinued. Cough and expectoration also diminished, and a little more air was found to enter the lower part of the left chest, the right side being fairly normal.

On November 15 (ten days after admission) he had a restless night with troublesome cough, and from that time dyspnœa continued to increase. More râles were heard on the right side, and there was no improvement on the left side.

On November 23 he passed a bad night, with dyspnœa and greatly increased dysphagia. When I saw him next morning he was in great distress of breathing, and I found that very little air was entering the right chest. I found also that he had no pulse at the right wrist, nor could I feel on the right side either temporal or carotid, though all these vessels were felt duly pulsating on the left. I com-

¹ Read at the Sheffield Medico-Chirurgical Society, February 28, 1895, and published in the *Quarterly Medical Journal*, April 1895. We are indebted to Dr. Pye-Smith and the proprietors of that Journal for the use of the illustrations.

menced to use the laryngoscope, but his dyspnoea increased so rapidly that he began to struggle for breath, saying 'I'm done,' and being evidently almost suffocated. I therefore immediately performed laryngotomy, a whiff of chloroform being administered. A small dark blood clot was ejected from the trachea, but on passing a tracheotomy tube no air went through it, so I opened the trachea freely and introduced my finger. I then felt the trachea was compressed from behind, its posterior wall feeling to be strongly pushed forward against the anterior wall.

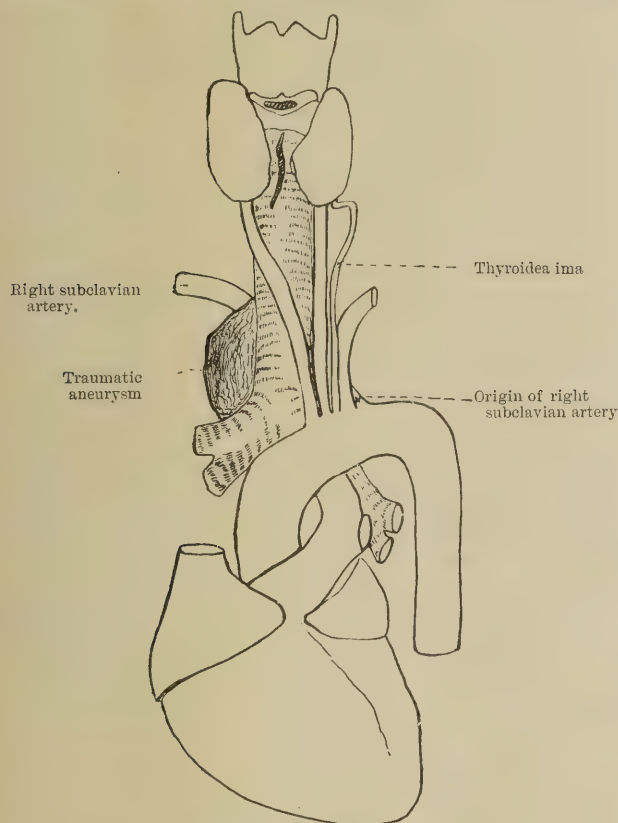


FIG. 1.—FROM THE FRONT

a pint. This occurred again an hour or so later, after which he gradually sank, and died about nine o'clock in the evening, November 25, twenty days after his accident.

After the patient's death my dresser informed me that he had noticed the pulse to be absent from the right wrist ever since his admission. Unfortunately both Mr. Hudson and I had happened to feel only the left pulse.

A *post-mortem* examination was made next day, when it was found that there was no fracture of spine,

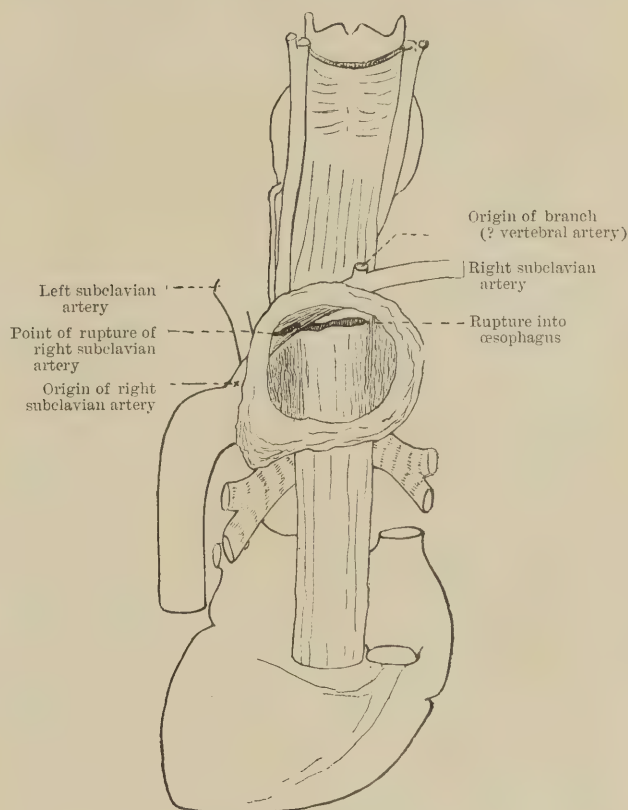


FIG. 2.—FROM BEHIND

No foreign body was met with. By means of long curved forceps, opened antero-posteriorly, the lumen of the trachea was restored, and breathing was again established, some more blood clots being expectorated. Ultimately a piece of large and thick india-rubber tubing was passed three or four inches down the trachea and tied in. Through this he breathed with moderate ease, but swallowing was still difficult.

In the evening the pulse could be felt feebly in the right radial, but not in the right carotid. He passed a tolerable night, but in the afternoon of the next day he vomited a quantity of blood, perhaps half

ribs, sternum, larynx, &c., and that, with the exception of recent pleuritic adhesions about the upper lobe of the right lung (and, of course, the wounds in the larynx and trachea), the only lesion was a traumatic aneurism in the posterior mediastinum, which had ruptured into the oesophagus. The aneurism proved to be situated on the aberrant right subclavian artery.

On opening the thorax and neck, the right carotid artery was seen crossing the trachea obliquely a short distance below the tracheotomy wound and flattened by pressure forwards of the trachea. On

further dissection this vessel was seen to spring directly from the aorta, the innominate being absent, whilst the right subclavian was found coming off from the arch of the aorta beyond the left subclavian and taking a deep course from left to right between the spine and the œsophagus to reach the upper limb. Just where it crossed the spine (about the third or fourth dorsal vertebra) there was a traumatic aneurism, measuring about two and a half inches in diameter. On opening it, the rupture of the artery was evident, as also a slit-like communication with the œsophagus in front of it. The arteries appeared quite healthy.

The specimen was afterwards carefully dissected by Dr. G. Wilkinson, Curator of the Museum, who made the sketches for the illustrations. The position of the right carotid might have involved an injury of this vessel in the operation of tracheotomy. There was an additional artery *thyroidea ima*.

The author remarks as to the peculiarity of the case, and its value for diagnosis in any similar instance, especially as the irregularity of the arterial arrangement is a recognised occasional condition.

After the necropsy the sequence of events became very intelligible. The effect of the fall expended itself in such stretching of the dorsal spine (or, possibly, in such crushing of the chest contents between the spine and the sternum, driven back by the window frame) as to cause a rupture of the subclavian artery where it crossed the body of one of the upper dorsal vertebræ. Hence the obliteration of the subclavian artery and the consequent absence of pulse at the right wrist. The resulting limited effusion of blood in the posterior mediastinum, forming a traumatic aneurism, pressed sufficiently forwards towards the left to occlude, almost entirely, the lumen of the left bronchus. Hence the absence of respiratory sounds in the left chest. It probably also compressed to some extent the pulmonary veins. Hence the early râles and expectoration of frothy blood. Then, after a period of quiescence, further internal hæmorrhage led to increased pressure on the gullet, and through it on the trachea, and through that again on the carotid. Hence the increased dysphagia, the urgent dyspnoea, and the absence of the carotid pulse. The gradual establishment of collateral circulation probably accounted for the feebly returning radial pulse, as also for the well-maintained nutrition of the right upper limb throughout. Finally, the aneurismal sac burst or ulcerated into the œsophagus, giving rise to the vomiting of blood which preceded the fatal termination of the case.

CLINICAL RESEARCH

The Clinical Research Association, which we described in the January number, has continued to flourish and extend its work, and now possesses nearly a thousand subscribers. The last report, in the form of a handbook which this association has issued, states: 'It falls to the lot of but few private practitioners to possess the leisure, facilities, and assistance to enable them to provide for their patients the advantages that must accrue from investigations carried on in such an institution. When these researches become absolutely necessary, the practitioner must either conduct them himself, with the loss of much valuable time, or put himself under an obligation to some less busy colleague. In many cases where the research would tend rather to the advancement of general medical knowledge than to the special benefit of the patient, it must perforce be abandoned. It was to remedy this unsatisfactory condition of affairs that, in the autumn of 1894, with the good wishes and approval of some of the most eminent physicians and surgeons in the United Kingdom, the Clinical Research Association was originated.'

The fact that in these few months this large number of subscribers has been obtained is sufficient proof of the appreciation which the undertaking meets with. It is a good sign of the times that medical men all over the country are recognising the value of scientific methods of inquiry, and we quite expect that when the subject of bacteriological teaching as a part of the medical curriculum of students is again brought before the General Medical Council they will be inclined to give it a more favourable consideration than they did at their last meeting.

In the handbook of the Clinical Research Association just referred to, directions are given for the transmission of specimens which will be found very useful to the practitioner; in fact, as we stated in January, the arrangements made to facilitate these matters are remarkably well organised.

We have received a prospectus of the formation of an institute called the Leicester Bacteriological Institute, which has been formed for the purpose of providing medical men in the Midlands the opportunity of carrying on original research in connection with the etiology of disease.

A laboratory has been provided and fitted up by Messrs. John Richardson & Co., Leicester, and placed

under the control of a council appointed by the Leicester Medical Society.

The objects are described as follows:—

1. To investigate the means for preventing and curing the various infectious and other diseases, and to provide a place where original research work may be carried on for this purpose.

2. To provide instruction to medical men and advanced students in bacteriology.

3. For the diagnosis of disease by means of bacteriological and other processes.

4. To prepare, supply, and test any protective or curative material.

The laboratory has been licensed under Act 39–40 Vict. ch. 77, and medical men have the privilege of the use of the laboratory, microscopes, reagents, apparatus, incubators, and all necessary material, subject to the control of the director, for seven guineas per annum.

The fee for microscopical and bacteriological examination of any discharge and report upon the same, typhoid fever, tuberculosis, diphtheria, influenza, urine, morbid growths, &c., is five shillings. Any further information can be obtained on application to the Director, Bacteriological Laboratory, Stanley Road, Leicester.

The council is formed of C. H. Marriott, Esq., chairman, J. Andrew Turner, Esq., director, H. N. B. Richardson, Esq., hon. treasurer, and the following members of council, Messrs. C. J. Bond, C. Douglas, and G. C. Franklin, and Drs. H. Meadows, F. M. Pope, and R. Pratt.

THE MODERN DAIRY

In May, under the 'Report of the Royal Commission on Tuberculosis,' we stated our intention of giving an account of a carefully conducted modern dairy.

There are doubtless many dairies in the present day, the proprietors of which do everything that is necessary to supply their customers with the best milk and to prevent its contamination by disease germs, but for the purpose of our inquiry we have selected Messrs. Welford & Sons as one of the foremost firms in this respect, whose system appears to us excellently planned and carried out. We shall, however, be happy to refer to any other establishment where similar precautions are observed.

The milk comes from farms immediately under the control of the firm, and also from over a hundred

supplementary farms. The home farms are situated at Harlesden and Willesden, and are under constant and most thorough supervision.

As regards the outside farms, every producer who proposes to supply this firm with milk has in the first place to fill up a proposal form in which he has to give details as regards the health of employes, water supply, &c. If this appears satisfactory, then a contract is entered into which is very carefully worded and contains, among other agreements, the following:

'No milk to be supplied from a newly calved cow or a cow not in good health, under physic, or with sore teats, nor from a newly purchased cow until she shall have been two clear days in the farmer's possession, nor from a cow whose calf has been removed until two clear days after such removal.

'No milk to be sent from cows other than those of the vendor.

'Immediately before milking, the cow's udders shall be cleaned, and the milkers shall thoroughly wash their hands, and no person with sore or unclean hands shall milk a cow.

'The purchasers or their nominees to be at liberty to inspect the farm, cows, milking and cooling arrangements, and to send their medical, veterinary, and sanitary officers or assistants for that purpose at all times.'

There are many other stringent agreements in this schedule. Medical reports are obtained from the Medical Officer of Health of the districts periodically, and also veterinary reports. The form of veterinary report includes questions as to any cases of tuberculosis existing in the district, as to any cows suffering from coughs, or from eruptions or chaps on the udders, and as to the cleanliness of their coats.

The dangers to which milk may be exposed, during the process of cooling, from poisonous exhalations are effectually provided against by a periodical examination of the sanitary conditions of the dairy farms and surroundings by their medical officers and sanitary engineer. They have elaborated a complete system of supervision and notification of all kinds of illness occurring among the milkers and others upon or near any of the farms above mentioned, under the guidance and with the assistance of such experts as Dr. Lauder Brunton and the late Dr. Mahomed, and now such work is ably superintended by Dr. Sidney Martin.

A fee of one guinea is paid to any of the medical men in the country who report to them any case of

illness occurring amongst the milkers and others on the farms, or any case of infectious disease occurring in the neighbourhood or villages.

Each farmer has to furnish the company, once every week, with a signed declaration as to the health of themselves, employés, and surrounding neighbourhood; and he is liable, under the conditions of agreement, to a penalty of 100*l.* for failure to notify any case of illness.

However careful we may be at any time to prevent infringement of rules, there is no plan more effective than that which involves the self-interest of the individuals concerned. Messrs. Welford & Sons, recognising this fact, indemnify their farmers against losing by giving information. In time of illness the milk which would have been supplied is paid for, even though destroyed. The labourers, should they be absent in consequence of illness, or suspended on account of illness occurring in their house, are paid their wages all the same, and, moreover, the medical officer of the district is retained to attend to those who are sick, and he is paid by the firm.

This is done until the company's medical officer has certified that no danger exists. Then, and not until then, the supply of milk from that farm is resumed.

In the home farms periodical examinations of the dairy cattle are made by the veterinary surgeons retained by the company. The sanitary arrangements of the dairies have been most carefully devised and carried out by their sanitary engineer, and the employés are housed in the company's own model dwellings and are under strict medical supervision.

In addition to Dr. Martin the medical inspection of farms is carried out by Dr. Edward F. Willoughby, and the medical officer for employés is Dr. G. Gwynne Bird.

Messrs. Welford complain that the 'Notification of Diseases Act' is 'permissible' instead of 'compulsory.' One of the chief difficulties in the prevention of milk contamination is the non-existence of the Notification Act in many districts. The company recognised the value of this Act from its inception. A few years ago they obtained milk from several farms on the North Stafford Railway in the Burton district, but, finding that the Notification Act was not enforced there, they terminated their contracts with those farms.

Their wisdom in taking this action has since been proved, for the extensive epidemic of scarlet fever which occurred in the Hornsey district some few

months ago was proved to have originated in the milk which came from the very district with which they had ceased to deal. Scarlet fever had occurred in two cottages on a farm where two cows were kept, and the nature of the illness was not discovered until too late to prevent infection of the milk. Had the Notification Act been in force, it is probable that this would not have occurred—at least, the milk supply would have been stopped in time.

Notwithstanding all the above precautions the firm supply the farmers with a form for their weekly account to which is added a report in which the vendor asserts that 'there is no case of sickness on my farm, or amongst my servants or workmen, and to my knowledge there is no case of fever or illness of an infectious nature in the neighbourhood of my farm.'

Medical men will thoroughly appreciate the value of these careful precautions, but we fear the general public have yet much to learn regarding the advantages they would derive from always having a milk free from contamination.

TUBERCULOUS DISEASE OF THE PORTIO VAGINALIS

Dr. J. D. Williams, of Cardiff, Freeland Barbour Fellow of the University of Edinburgh, writes:¹ 'Recent observation has shown that tuberculous disease of the female pelvic organs is not so rare as was formerly believed to be the case.'

He quotes a great number of authorities, and describes two cases of undoubted tuberculous disease of this portion of the cervix from his own private practice.

He concludes that it is of great importance to make a correct diagnosis between cervical tuberculosis and cancerous disease, and states that there are no signs or symptoms which can be considered pathognomonic except the detection of tubercle follicles and bacilli by the microscope. Prognosis is always grave on account of the risk of general infection. The treatment that has been adopted has been various. Iodine and iodoform have proved successful with some surgeons in healing up the part by granulations. Others have trusted to curetting followed by the application of the thermo-cautery, while excision of the ulcer with suture of the incised edges has also been practised. Some surgeons have amputated, but still the disease has a tendency to recur.

¹ *British Medical Journal*, May 4, 1895.

THE REMOTE EFFECTS OF SPINAL INJURIES IN MINERS

Dr. Rhys Griffiths, senior assistant surgeon to the infirmary, Cardiff, read a paper upon this subject before the South Wales and Monmouthshire branch of the British Medical Association,¹ February, 1895.

He described spinal sprain, injury to the bone not constituting a grave lesion; molecular disturbance of the cord; molecular disturbance of the whole nervous system; and he invited discussion on the following questions:—

‘1. How long do the symptoms of simple spinal sprain in miners last?’

‘2. Do miners frequently suffer from molecular disturbance of the spinal cord?’

‘3. Does organic disease of the spinal cord originate from molecular disturbance, and if it does, how often?’

‘4. Do miners often manifest the nervous symptoms which are so frequently met with after railway accidents and injuries?’

‘5. What influence, if any, has the establishment of the South Wales and Monmouthshire Permanent Miners’ Fund had upon the genesis of neuroses?’

The author purposely avoided the introduction of such terms as concussion of the spine and concussion of the spinal cord, because he considered them unhappy and inappropriate as applied to mining injuries, and because they have caused endless confusion and misunderstanding in the past.

The paper gave rise to a very instructive discussion, the outcome of which was:—

‘1. That symptoms of spinal sprain vary in duration mainly according to age—the younger the individual the more quickly he recovered. Old men might suffer for long periods. The difficulty was to exclude neurasthenia.

‘2. That molecular disturbance of the cord after accidents necessitating the use of a catheter was very rare—less rare, perhaps, were temporary and sensory disturbances.

‘3. That organic disease following upon molecular disturbance was very rare.

‘4. That neurasthenic disturbances were common after spinal accidents.

‘5. That the South Wales and Monmouthshire Permanent Miners’ Fund had a good deal to do with the genesis of nervous symptoms after accidents.’

¹ *British Medical Journal*, May 4, 1895.

Health and Holiday Resorts

SOUTHWOLD

On the coast of Suffolk, ten miles south of Lowestoft, is the small fishing town of Southwold, which deserves to be better known, because it has few rivals as a bracing health resort. Indeed, it is doubtful whether the characteristics which qualify a town to be called bracing are presented, in quite equal degree, by any of the coast towns in the southern half of England, extending from the Mersey to the Humber. It has a dry soil, a low rainfall, and above all the free play of breezes, and more than breezes, of winds which come in turns from every quarter.

Situated on a low gravel hill in that part of England where least rain falls, it has the unique peculiarity of having the sea on one side, and on the other ground which is not above high-water mark. The valley of the tidal river Blyth, which extends from Halesworth to the sea, divides into two branches, separated by the hill on which Southwold stands, and of which it occupies about a third, while the rest forms a large common. This common adjoining the town is a great feature of the place, forming an excellent recreation ground, and is much used for golf, cricket, and tennis.

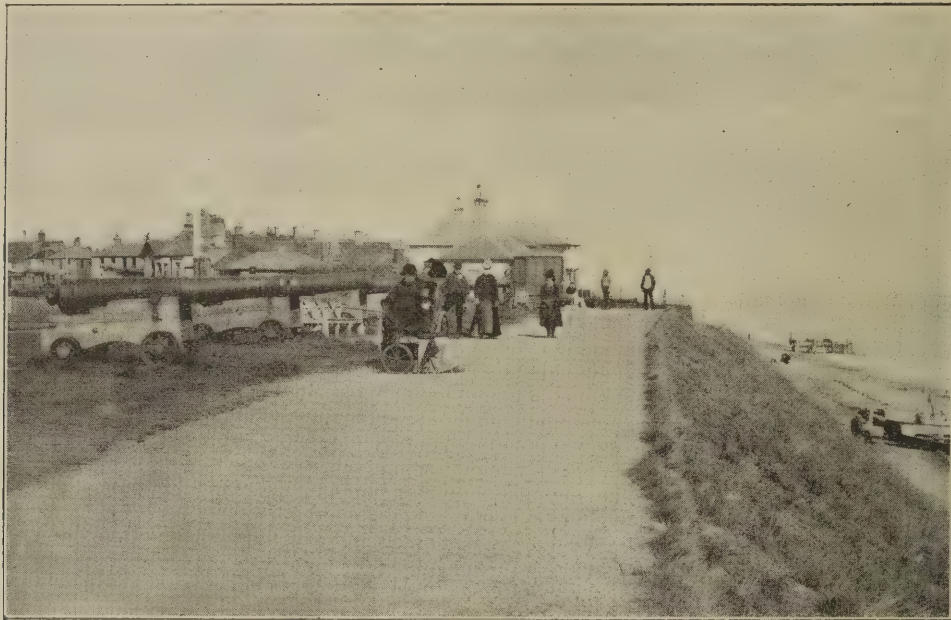
The valleys to the north and south are about three-quarters of a mile to a mile and a half wide, but to the west the low ground stretches unbroken to the ‘Broad’ of Blythburgh some four miles away.

When the east winds blow in winter and in early spring the bracing qualities of Southwold indeed approach the unendurable, save by the hardy, but from the end of May to November its restorative power for all forms of general and nervous weakness is remarkable. From June to October even sufferers from phthisis do well there, and in the early winter the temperature is generally a little higher than that of London.

The only class to whom it is unsuited are those who have chronic rheumatism or have had malaria. Although ague is not now known there, the low-lying land no doubt once produced it, and may now be a soil for some modified poison which acts on the predisposed. Yet cases of ordinary neuralgia benefit remarkably.

Its mental influence also is not to be despised in many cases. It is the only seaside town within about one hundred miles of London which can be

reached by rail, and to which no excursion train can gain access. From Halesworth (ten miles off) a miniature locomotive through the picturesque valley of the Blyth. The break of gauge is the safety of



THE GUN-HILL, LOOKING NORTH



THE COMMON, WITH THE TOWN BEYOND

narrow three-feet gauge line extends to Southwold, Southwold. If once the main line carriages were along which tramcar carriages are drawn by a allowed to reach it, nothing could prevent the place

from being flooded with east-end excursionists, and all its present quiet charm would be for ever at an end.

Southwold cannot expand to a size to rival Lowestoft or Yarmouth as a pleasure resort with a short paying season. Its future lies in its recognition as a resort for invalids, and the extension of its season to five months of the year. This would be destroyed by the adoption of a uniform railway gauge.

With its very porous soil, the question of water supply and drainage will occur to the reader's mind. Although only a small place with some three thousand inhabitants, it is an old corporate town, with mayor and aldermen, and all town solemnities. The corporation is not wanting in a sense of its responsibilities, especially when some external pressure is applied, and under the influence of the Local Government Board it is just completing a system of drainage which promises to be efficient, if only supplemented by due compulsion for proper household arrangements. Some years ago private enterprise established an excellent water supply from a well on the common, far away from the houses. The local water is not beyond suspicion, rather it is well within it, and, as the adoption of the new supply is not compulsory, visitors will do well to ascertain that the latter is laid on at the house to which they propose to go.

The death rate is low, and, including some visitors who came there in a serious condition, was only sixteen per thousand last year. We gather from the excellent report of the Medical Officer of Health, Mr. A. C. Herbert, that zymotic disease is extremely rare.

The town is itself attractive. It contains a series of village greens, two of which are separated by one of the noblest of East Anglian churches in the country, containing quite the finest rood-screen which yet exists.

The beach, with about a hundred small fishing boats, always affords some scene of interest, while only half a mile away the mouth of the river constitutes what is dignified by the name of 'the harbour'—a harbour now used only for large fishing boats and an occasional small yacht, but picturesque enough, with its old decaying piers.

On the other side of the river is the village, much beloved of artists, of Walberswick, the Wobbleswick of Charles Kean, and four miles further on rises from a high cliff the ruin of the last of the churches of Dunwich, once the capital of East Anglia and probably the Silomagus of Antonine. The whole district abounds in historical associations of the utmost interest, and in pleasant walks and drives.

The Practitioner's Note Book

The antitoxin treatment of diphtheria and tetanus.—

Dr. Sims Woodhead, in a paper read at a meeting of the Midland Medical Society, on April 3, 1895, upon the serum treatment of diphtheria and tetanus,¹ terminated a very interesting paper by stating:—

'It may be gathered that, so far, the success obtained by the antitoxic serum method of treatment of tetanus is comparatively slight, if indeed it can be argued that the success has been greater than that obtained by the ordinary methods of treatment.'

Further, he thought it was probable that ere long some system of prophylaxis may do more for the stamping out of both diphtheria and tetanus than we are at present prepared to believe.

He then recorded the statistics as to mortality with and without the use of antitoxin serum in cases of diphtheria.

'During 1893 there were 13,694 cases of diphtheria notified in London, and the mortality amongst these cases was 3,195, or 23·3 per cent. To compare with the case-mortality in large well-found hospitals, we will take the hospitals under the Metropolitan Asylums Board. The admissions in 1893 were 2,848, and the number of deaths 865, or 30·3 per cent.

'Next take the reports of Messrs. Washbourn, Goodall, and Card of 72 cases with 14 deaths, or 19·4 per cent., with serum treatment; the average percentage of mortality for the hospital being 38·8 per cent.

'Amongst the more important foreign statistics with regard to serum treatment may be cited the following:—

'Kossel (Berlin), in 233 cases treated up to May 1894, gives 54 deaths, or 23·0 per cent.; and in 117 cases treated from March 15 to Dec. 1, 1894, there were 13 deaths, or 11·1 per cent.; the average previous mortality being 34·7 per cent.

'Aronson gives 255 cases with 31 deaths, or 12·1 per cent.; the previous mortality being 32·5–41·7 per cent.

'Baginsky (Berlin) enumerates 303 cases with a mortality of 13·2 per cent.; previous mortality 47·8 per cent.

'Hahn (Berlin) gives 205 cases with 49 deaths, or 24 per cent.; previous mortality 40 per cent.

'Wiederhofer, of Vienna, cites 100 cases with 24 deaths, or 24 per cent.; previous mortality 52·6 per cent.

'Strahlmann gives a series of 100 cases with no death.

'Ganghofner, of Prague, gives 110 cases with 14 deaths or 12·7 per cent.; previous mortality 49 per cent.

¹ *Birmingham Medical Review* for May 1895.

'Roux, Martin, and Chaillou, in Paris, treated 448 cases and had 109 deaths, or 24·5 per cent.; previous mortality 57·7 per cent.

'Moizard (Paris) cites 231 cases with 34 deaths, or 14·7 per cent.; previous mortality 50 per cent.

'Lebreton (Paris) gives 242 cases with 28 deaths, or 11·5 per cent.

'These statistics are of value only in so far as they indicate the general improvement that has taken place since the initiation of the serum treatment; but we are assured on all hands, by most of those who have had experience of the treatment of diphtheria by the older methods and also by the serum method, that the cases run a much more satisfactory course generally; even in grave cases, the symptoms are never so distressing—a most important point, as all who have had experience of cases of diphtheria are fully aware.

'The results obtained by the serum treatment of diphtheria are so encouraging that I think it will be agreed that the future of serum-therapy is full of promise. A new field of investigation has been opened up, and a weapon, of the full power of which we are still to a certain extent in a state of ignorance, has been placed in the hands of the physician. Pneumonia is the next disease to be attacked on this parallel; but it is extremely probable that other similar diseases may be treated by this method with at least some measure of success. I have attempted, in this brief and disconnected outline, to indicate merely the possibilities and the limitations of serum therapeutics as exemplified in their application to diphtheria and to tetanus.'

Prophylactic remedies for influenza.—Following upon Dr. Sinclair Coghill's advocacy of quinine as a prophylactic, Mr. W. E. Green, surgeon to the Isle of Wight Railway, speaks with great praise¹ of sulphide of calcium given in one-grain doses every day.

He used this treatment with the employés of the Isle of Wight railway, and none of the men who had taken the pills regularly had influenza, whereas upon another occasion, when the pills were omitted, influenza appeared.

Mr. Green had a case of influenza lately in a patient who had been taking twelve grains of quinine regularly for some weeks; and he has seen the disease occurring in others who had taken daily doses of sulphur.

Whatever may be the exact explanation of this experience, there seems little doubt that whatever confers good health and increases the vitality also helps to counteract the tendency to contract this disease.

evidence of Dr. W. H. Park, of New York, was quoted, and suggestions as to methods of prevention were given. Dr. Herbert Peck, Medical Officer of Health to the Ormskirk Rural District Council, records several cases¹ which are of interest in this particular, as they show the possibility of transmission of the disease by those who are accidentally brought into contact with it, without themselves contracting the disease.

Electric lighting.—With regard to our remarks upon the use of incandescent electric light, Mr. T. Tayler Smith writes from 53 South Molton Street to say that he has been interested in our remarks upon the subject, and is very glad to see Dr. Swanzy's statement that no bad results have been observed from the use of this light.

He has found, however, that when the incandescent lamp is placed very near to the eyes for continuous work it ought not to be used in its naked form, but the lamps should be frosted or shielded.

'Desk lamps as used in many offices close to the eyes, with a simple opal shade *above* the lamp, are extremely objectionable. It will be found in drawing or writing with lead pencils on highly glazed paper under such light, that it is extremely trying, and the work cannot be prosecuted for any length of time. This is because the electric lamp filament is not shielded, and the intensity of the light is too concentrated.

'I have,' he states, 'no medical knowledge concerning this subject, but I have had considerable experience in the use of all descriptions of electric lamps. I have made experiments and found that a straw-coloured globe slightly frosted is less fatiguing than any other, particularly for all work where the lamp is used near the eyes. I think that this matter cannot be too widely known.'

Castration for enlarged prostate.—Further cases are being collected to show the influence of this plan of treatment. Dr. A. G. Faulds, Assistant to the Professor of Surgery, St. Mungo's College, Glasgow, gives a list of unsuccessful cases.¹ In four of these the operation was followed by acute mania or some other state of mental aberration.

At a meeting of the Clinical Society on April 26, 1895, Mr. C. Mansell Moullin related two further cases upon which he had performed this operation, and which he now termed orchotomy. One of these cases proved fatal, but the other was a success. Both of them, however, bore testimony to the fact that enlargement of the prostate, no matter how great it was, disappeared a very short time after orchotomy had been performed, and it was urged that sufficient evidence had been brought forward to justify assurance being given to those who were suffering from the effects of this disease that if the operation were performed

The transmission of diphtheria by non-sufferers.—In this journal for March, this subject was discussed and the

¹ *Brit. Med. Journal*, May 4, 1895.

¹ *Brit. Med. Journal*, May 4, 1895.

the enlargement would disappear, and unless it had been hopelessly ruined by cystitis and catheterisation the bladder would recover its power.

Carbolic acid poisoning from the use of compresses before operation.—Mr. Clement Lucas and Mr. Arbuthnot Lane record two cases¹ in which coma and other very serious symptoms occurred from the use of a 1 in 20 solution of carbolic acid to the skin. The first case was a boy of 15, who was suffering from sinuses in the thigh. The compress was applied at noon, and 'in the evening' the symptoms commenced with sickness, and at 2.30 A.M. the next morning he was found comatose, and was very ill for three days.

The case under Mr. Lane was that of a boy aged 6½, and the symptoms of collapse and coma commenced one hour and ten minutes after the compress had been *in situ*.

Although such cases are very rare, it is a question whether a solution of 1 in 40 will not answer all necessary purposes.

Comparative illegitimacy.—M. Paul Bourget, in a book which he has written on America, twits the Americans with a desire to look up their grandfathers when they have any leisure.

Mark Twain is very angry, and replies that the French, when *they* have any leisure, spend it in hunting up their fathers.

Bourget, in reply, tries to prove that the ratio of illegitimacy is greater in America than in France.

The 'New York Medical Record'² takes up the cudgels, and makes the statement, supported by figures, that in France the illegitimates are much more numerous than in America, and are steadily increasing, while marriages are decreasing. The article continues:—

'The most striking phenomenon after all, however, about the Parisian is, not that he can't find his father (twenty-eight per cent. having none), but that he succeeds in getting born at all, for in this wonderful city, out of every 100 families, 32.3 have no children (unless they are still births). Out of 60,000 babies born in Paris yearly, 20,000 are sent out into the country to nurse, and of these thirty-eight per cent. die in the first year. So that if a Parisian is lucky enough to get fathered, and then to find the father, he isn't out of his troubles, for he has hardly an even chance of growing up.'

The Cambridge Summer School of Medicine for Qualified Practitioners during the first week in July promises

well; more than a hundred, we learn, have expressed the desire to attend, which is about as many as can conveniently be accommodated. There will be demonstrations in the physiological and pathological laboratories and at the hospital during the mornings, and in the afternoons in the museums, by Professors Macalister, Sir George Humphry, and others; also evening lectures by Professors Allbutt and Michael Foster. The proceedings will begin with a *conversazione* and short address by Sir George Humphry on the Monday evening, and there will be a Garden Party in King's College on Tuesday. Most, if not all, of the visitors will be accommodated in the College.

Applications should be made to Dr. Griffiths, King's College, Cambridge.

Fractures of long bones—the prevention of deformity and other bad results of irregular union.—Mr. D. M. Beddoe writes a very interesting and suggestive paper¹ upon the treatment of fractures. He has tabulated a series of thirteen cases of Pott's fracture, and sixteen of fractured shaft of femur.

In the majority of these the results are not satisfactory, either on account of shortening or other irregularity of union. Mr. Beddoe remarks upon the difficulties of placing a limb in a good position, and especially of retaining it so by ordinary splints. He refers to the effect of extravasated blood beneath the muscles as a prevalent cause of difficulty, and suggests that opening up a fracture of this kind by operation, draining the tissues from the extravasation, and uniting the fractured bone in its normal position by wire or other material, would give far better results, and is justifiable considering the safety of modern surgery.

Iodine and tannin.—The assimilation of iodine has been shown by Dr. A. Baronnet to be much more satisfactory when combined with tannin, and in this form, moreover, its disagreeable taste is not appreciable.

M. Nourry, a French chemist, has prepared this combination in the form of a wine which he calls 'Vin Nourry.' In Paris this preparation has met with much favour in the treatment of children, and is used in many of the hospitals.

It has also been in use for some time in this country, and has been found beneficial in cases when iodine is indicated.

Dr. Baronnet asserts that in this combination the iodine is not in a free state, but is *slightly* combined—that is to say, it readily separates itself again. He considered that it was apparent that iodine in the presence of tannin—as in the case of albuminoid substances—forms a real iodine compound analogous to iod-albumen.

¹ *Lancet*, June 1, 1895.

² May 11, 1895.

¹ *Lancet*, June 1, 1895.

Therapeutics

In the second edition of Dr. McCall Anderson's work on diseases of the skin, under the subject of 'Eczema,' by Professor Unna, prescriptions are given, and we have selected the following as likely to prove useful to our readers, and also as an example of the character of the work.

On p. 169, under the head of 'Eczema Acutum,' the use of absorbent powders is referred to, and it is further stated that usually soothing ointments are very advantageous, not only in affording relief generally, but also in removing crusts and *débris*; that they not only act as sedatives, but also afford a covering for and protection to the inflamed parts, also excluding the air. It is stated that these ointments ought to be prepared with the utmost care and with perfectly fresh ingredients.

A good application is a mixture of equal parts of lead plaster and vaseline, or of powdered oxide of zinc and glycerine, to which a little camphor may be added if necessary, as follows:

℞ Pulv. camphoræ	9j
Pulv. zinci oxidi	3ij
Glycerini	3j
Adipis benzoati	3j
Cochinillini	gr. j
Olei rosæ	mj. M.

Professor Unna is much in favour of the 'unguentum oxidi zinci benzoatum' of Erasmus Wilson, Bell's formula for which is as follows:

℞ Adipis præparati	3v
Gummi benzoini pulveris	3j
Liquefac, cum leni calore, per horas viginti quatuor, in vaso clauso; dein cola per linteam, et adde	
Oxidi zinci purificati	3j
Misce bene, et per linteam exprime.	

To this a drachm of rectified spirit, spirits of camphor, or Price's glycerine may sometimes be added with advantage. The benzoin prevents the ointment from becoming rancid and irritating, while at the same time it imparts to it a certain fragrance. It is an excellent preparation, but, owing to the white crust which is apt to form, it is inferior to others when the eruption is situated upon uncovered or upon hairy parts. In such situations the zinc ointment of Dr. L. D. Bulkley, of New York, is preferable, and is composed of pure carbonate of zinc and the ceratum galeni (cold cream), in the proportion of half a drachm to the ounce.

One of the most valuable soothing ointments is the 'unguentum diachyli albi' of Hebra, of which the following is the formula:

℞ Olei oliv. opt.	3xv
Lithargyri	3iij et 3vj
Coque l. a. in ung. moll., dein adde	
Ol. lavandulæ	3iij.
M. Ft. unguentum.	

This ointment is likewise unsuitable for hairy parts on account of its matting the hairs together. Unna recommends the following:—

℞ Lanolini anhydrici	3j
Adipis benzoati ¹	3ij
Aquæ rosarum ²	3iij-3vj

Pastes.—Another excellent application, except in very acute cases, is Lassar's paste, composed of 3ss of salicylic acid, 3vj each of starch and oxide of zinc, and 3xijss of pure lanoline, or the following modification of it:

℞ Acidi salicylici	3j
Zinci carbonatis pur.	} āā
Terræ cimoliæ	
Linimenti calcis	
Lanolini anhydrici	3iij. M.

They doubtless have more experience in America with insect bites than we have in England, and we therefore give the following prescription from 'Archives of Pediatrics.'

Insect Bites:—

Ammonia	45 minims.
Collodion	15 minims.
Salicylic acid	1½ gr.

S. One drop to be applied to each spot affected.

Nursing

Training in maternity work.—However divided opinion may be on the question of State registration of midwives, the necessity for their proper education has not been questioned. Yet many difficulties lie before women desirous of supplementing the course of general hospital training with instruction in maternity work.

The fees at lying-in hospitals are heavy, and although they may be considered as a good investment by those who restrict themselves to this special training, yet they are a great tax on the resources of women who have already given up several years of their lives to become trained nurses.

While few general hospitals can include midwifery in the nurses' curriculum, all workhouse infirmaries are possessed of facilities which at present are wasted. The lying-in wards appear to be generally situated in the workhouse (when this is apart from the infirmary), and they are not considered to be within the province of the head of the nursing department.

There seems, judging by frequent advertisements, to be a certain difficulty in obtaining an adequate supply of suitable nurses and probationers to work under the Poor Law, whilst the general hospitals are inconveniently inundated with applications.

¹ Or ung. zinci benzoati. ² Or calcis, or liquor plumbi subacetatis

If the completion of training in the workhouse infirmary consisted of a full course of instruction in the lying-in wards, there would soon be a reaction which would result in largely increased popularity of the work in these institutions.

Not only pupils, but the patients themselves, would benefit by such a movement as this. The inmates differ essentially from those in most lying-in hospitals, being of a far lower type, and a large proportion unmarried and friendless. To such girls as these much good might result from constant intercourse with the humane trained nurses with whom they would be closely associated during at the least three weeks, but frequently for a longer period. The midwife who, under the medical superintendent, supervises these wards would benefit also by having to instruct a succession of intelligent pupils, in place of 'putting up with' an uncertain quantity of pauper help.

Therefore, whilst some women will always be glad to pay the fees and undergo the training of existing special hospitals, the wide field now wasted in the workhouses ought to be used for the advantage of probationers trained under the Poor Law.

The lady visitors and women guardians who take a philanthropic interest in the future of unfortunate young girls, would find their efforts to give them a fresh start in life greatly assisted by the influence brought to bear by those whose duties would be incessantly amongst the poor weak mothers.

The Obstetrical Society and midwifery certificates.—

At the meeting of the General Medical Council on Wednesday, May 29, it was announced that the Obstetrical Society had communicated with the Council, through its president, Dr. Champneys, stating that, in accordance with the wishes of the General Medical Council, the Council of the Obstetrical Society accepted the form of certificate approved by the Executive Committee of the Council, and would in future use it.

The President, Sir Richard Quain, said 'he was sure this was a very gratifying result of a very unpleasant controversy.'

The subject was not, however, allowed to drop, and among others Sir Walter Foster championed the view that the word 'midwife' should give way to the term 'midwifery nurse.' We defer further remark upon this important subject for the present.

Nursing institutions and nurses' co-operation.—

Mr. Robert O'Callaghan writes to us regarding our article in the May number upon this subject. He refers to our statement that we hope the day will soon come when the farming of nurses upon the unjust terms there referred to will be impossible.

He writes in favour of the ordinary nursing institutions,

and doubts whether a high-class and well-trained nurse can be so certainly obtained from a co-operative institution as from the other. As regards the nurse's own interests, he does not think she can save more money under one system than the other. There can be no doubt, he thinks, that the life of a nurse in a good nursing institution is freer from anxiety, and more secure against ill-fortune, than that of a nurse working for a co-operative society, or on her own account.

'Under the co-operative system she receives all fees earned less $7\frac{1}{2}$ per cent. Out of the balance she must dress well, pay rent for room, and board herself for the four months of the year she is usually idle. She has no security from bad debts, which are not so uncommon as one would suppose. In the event of illness she has to fall back upon her small savings, be a burden to her friends, or enter a hospital.

'On the other side, if in an institute she receives a fixed salary (some 30*l.* a year and uniform is the current rate), and if not a good nurse is soon weeded out; she is boarded and lodged, tended in sickness, and has no occasion to worry about where her next fee is to come from. She takes her holidays and enjoys them in peace.

'If of a saving disposition she can put aside a certain sum annually. That nurses who are really fond of their calling appreciate this is evident from the numerous women engaged on the private staffs of the various hospitals and institutions in London and the provinces, and from the fact that many women who have tried co-operation and working on their own account have gladly returned to the institution life with its many comforts.

'In conclusion, co-operation has been the means of making the managers of institutions weed out their staff, and shown them that to succeed in keeping the confidence and support of our profession they must have the best-trained and highest-class nurses they can find. In this way I consider co-operation has benefited our profession and the best class of nurse, to whom they must pay a fair salary.'

Doubtless there is something to be said on both sides of this as of every other question; but we cannot agree that 30*l.* per annum is a fair wage for a fully trained private nurse. We think that the institutions should pay at least 35*l.* to 40*l.*, with care in sickness and a free home when the nurse is disengaged. There should also be encouragement to nurses to take out policies in the Royal National Pension Fund for Nurses, and also for sick pay, now arranged by some of the hospitals; this scheme is not always approved by private nursing institutions, many of which are conducted solely in the interests of the proprietors.

With regard to the question of bad debts, that is a matter of business which the co-operative society should have the power of controlling to some extent. In respect to the excellency of the nurse, we can only reiterate that

our own experience of the institution we referred to is that every care is taken to secure good nurses; and upon the other hand we know as a fact that many of the nursing institutions will accept almost anyone who offers herself when there is much pressure upon them in times of universal illness.

From one institution we have known nurses sent out who have only had a few weeks' experience in a nursing home. However, there is doubtless room for nursing institutions as well as co-operative societies, and, as we have before stated, it rests with the nurses themselves to demand a proper consideration for their services.

Reviews

A Dictionary of Mineral Waters, Climatic Health Resorts, Sea Baths, Hydropathic Establishments, &c. With a Map. By B. BRADSHAW. 8vo. Price 3s. 6d. 1895. (Kegan Paul, Trench, Trübner & Co., Limited.)

We have received a copy of the new issue of this very useful book, the former editions of which we have always found fairly reliable. It commences with an introductory address to travellers, gives the constituents of various mineral waters, and a chapter on suggestions to those intending to visit continental mineral water or bathing places; a list of diseases and the places which are supposed to be beneficial for them; a table showing the quickest route, mode of conveyance, times, and fares to various health resorts, the time and prices being calculated from Paris.

Under an alphabetical arrangement the name of every place worth mentioning is given, many of them being necessarily very short, while others are dealt with at greater length. Such a place as Dinard is dealt with in ten lines, but Davos-Platz takes up nearly three pages, and Aix-les-Bains occupies a page and a half.

Several maps are given of districts and a few of towns. The map, which is separate and which is contained in a small pocket, shows the names of the stations, and an itinerary of the quickest and cheapest routes by rail, boats, carriages, &c.

It is a most handy work of reference for the doctor, who may be at any moment consulted regarding the peculiarities of some particular place, or regarding advice as to the district suitable for some particular class of cases.

A Treatise on Diseases of the Skin: with special Reference to their Diagnosis and Treatment. By T. M'CALL ANDERSON, M.D., Professor of Clinical Medicine in the University of Glasgow. 2nd Edition, Revised and Enlarged. Pp. 761, crown 8vo. Price 25s. (London: Charles Griffin & Co. Lim.)

This work is so well known as the product of a very able physician that we do not feel called upon to review

it at great length, but content ourselves with highly recommending it to the general practitioner, who will find the volume very useful as a clinical guide. The author has obtained contributions from several well-known writers. Drs. H. C. Cameron, William Macewen, George A. Turner, Messrs. Unna, Thomas Brice, and John Brown have all written upon subjects with which they are specially acquainted. Among these we would particularly notice the chapters on eczema by Professor Unna, and under the head of 'Therapeutics' we give a selection of prescriptions which appear in this portion of the work.

The Extra Pharmacopœia. By WILLIAM MARTINDALE, F.C.S., and W. WYNN WESTCOTT, M.B. Lond. 8th Edit. Pp. 584, med. 24mo. Price 9s. (London: H. K. Lewis.)

The eighth edition of this very useful little book quite keeps up the excellent reputation which it had previously attained. It necessarily deals with the anticipated new British Pharmacopœia, and on p. xiii a list is given of suggested unofficial preparations, which the authors consider require admission to the Pharmacopœia, and of official preparations which might be deleted. This list is the result of an investigation of 25,500 recent prescriptions dispensed in Great Britain, Ireland, and the Colonies, and therefore the recommendations may be considered as worth the attention of the College of Physicians. This investigation also gives a fair idea of the care taken by the authors in preparing their volume.

The recent introduction of preparations from the animal kingdom receives considerable attention. On p. 446 these remedies are dealt with in a concise but thoroughly explanatory manner.

Serum treatment by antitoxins; the use of cholera virus; rabies antitoxin; the use of toxin of erysipelas for sarcoma, &c.; tetanus antitoxin; tuberculin and tuberculo-cidin solution; bone marrow extract; cardin, or heart extract; cerebrin and myelin; extracts of the pancreas, testicle, spleen, suprarenal glands, thymus glands, and thyroid glands are all described.

The latest researches on the alkaloids of aconite and ipecacuanha, including aconitine, emetine, and cephaeline, are referred to. The compounds and derivatives of caffeine, bismuth, iron, and gold are introduced, and the internal administration of petroleum is mentioned.

As an example of the method of dealing with these subjects we may refer to tetanus antitoxin. After giving a short history of its preparation and use, it is stated that the antitoxin prepared by Tizzoni as now sold is costly; it is also prepared at the Pasteur Institute in Paris, but no supply of English manufacture is available. Then follows a short account of the results of using this remedy, and quotations from various reported cases.

This is certainly a little volume which ought to be in the hands of every medical practitioner.